THE DISSECTOR.

Vol. III. NEW-YORK, OCTOBER, 1846. No. IV.

(For the Dissector.)

TRACTS ON CONSUMPTION.

NUMBER FOUR

On the Sanability and Treatment of Tubercular Phthisis.

By J——— G———, M. D.

Hitherto it has been our chief object to point out the means—diagnostic and pathological—by which the practitioner may ascertain the condition of his patient's lungs in Consumption; and now we must endeavor to show how he may make this knowledge available to his welfare. In presenting to the notice of physicians a new principle of treatment for this almost hopeless affection, the writer trusts to be able to give such reasons for its introduction as will screen him from the imputation of empirical presumption This principle calls for a new application of remedies, in claiming more than common efficacy for which, he hopes he may not be considered under the influence of mere personal vanity. While he deems it a duty to give publicity to carefully examined opinions and the results of experience, he is anxious to escape being classed with those who are captivated with a novelty before they have examined it, and who, in their enthusiasm at a few cases of real or fancied success, place no limits in their imagination to the importance of the agents used. It is rather his wish to be considered among those who view novelties in medicine with an eye of skepticism—who examine their properties by the severest rules of reason, and who satisfy themselves of their value by numerous trials before advocating, or even admitting their utility The administration of the article of the materia medica on which he places his chief reliance did not originate with him; it has been long used with apparent success by an eminent practitioner of New York; but he has had sufficient personal evidence of its power over this intractable disease to be satisfied of its merits. Still, knowing the proneness of physicians to be deceived in regard to the virtues of a medicine that they have either introduced or advocated, and acting in conformity with the principles of medical duty above referred to, he has refrained, for several years, from urging its employment with that high toned confidence which usually accompanies a favorite and important remedy. Aware that it has heretofore been found every proposed remedy for consumption has proved unsuccessful in the hands of other physicians than those who originally used it, or a few blind admirers and followers, and unwilling to renew such a result, or to place too much reliance on his own or any single judgment, he has suggested the use of his remedy to several of his professional brethren placed above the feelings alluded to In their hands his experiments have been repeated, and with a concurrence in opinion as to their value highly gratifying to his feelings Expressing these opinions with moderation they uniformly agree that the introduction of his remedy, into the treatment of Tubercular Phthisis, is an acquisition to the healing art, since its use always produces beneficial effects—removing the disease in its early stages, and where it is too far advanced for a cure to be effected, checking the progress of tubercles, alleviating expectoration and prolonging life.

This new plan of treating tubercular phthisis is so far from superceding the general principles of medicine that it requires a comprehensive view of the whole disorder should be taken, and an adaptation of known remedies to particular modifications of it should be employed. Looking to the state of the constitution as the prime evil to be remedied, it considers the local affection a

comparatively unimportant consideration.—Correctness of diagnosis, so essential to the judicious management of any disease, is indispensible to the efficacy of this treatment because it is found to exert no salutary control over simulated consumption, or any of the ailments which so frequently accompany and complicate the genuine disease.

In a disease, which, like consumption, affects the system generally, and has many attendant disorders, it is not to be expected that the use of any medicine, or combination of medicines can afford well grounded hope of removing it under all circumstances. Useful as our remedy unquestionably is, it will be found, if administered on the principle of a specific---like all other medicaments so considered—to produce frequent disappointments. Discrimination must be used in selecting the proper stages as well as the proper cases for its exhibition; for, as in every other disorder, the nature and extent of the injury must guide us in its administration as they will form the measure of its efficacy. It has been our endeavor to show, throughout the whole tendency of our remarks, that we are not unaware of the generally inflexible and mortal character of consumption, still, we believe in, and shall aim to inculcate the possibility of continuing life under its existence, and even of effecting, in a large proportion of cases, a permanent cure. We consider that as certainly as morbific poisons act as physical causes upon and impair the functions, or induce disorganizations of tissues, so certainly do medicines, by equally physical agencies, restore the former, and put a stop to the latter. That there is within the scope and range of the materia medica, substances which act directly on the morbid process in consumption, so as to modify the constitution as well as check the increase of tubercles, is a position supported by numerous analogies, and confirmed in our opinion by a close and somewhat extensive observation.

The uniform results of this observation authorise the assertion that where consumption has not extended beyond its simple constitutional state, the principle of treatment we advocate will, in all instances, exert a salutary and permanent control over it.—And where the accompanying local injury does not extend beyond the presence of tubercles in one region of a single lung, or, as it may be illustrated, is not a greater source of irritation and suppuration than that arising from a sword thrust, or the presence of a musket bullet in the lungs, the employment of our remedies will always warrant the hope of curing the disease. Experience further justifies the belief that these remedies will frequently put a stop to tubercular growth, after the softening and destructive process has attained a considerable extent; while by their aid the system may be freed from the irritating fluid, and the patient with a diminished respiratory apparatus, be enabled to live in the enjoyment of a certain degree of health. But we do not mean to imply that when the whole organ of the lungs is extensively disorganized by the presence of tubercles—when the portion remaining healthy is not sufficient for the decarbonization of the little blood that may be left in an attenuated body—it would not be unreasonable to expect a cure. In such circumstances a favorable result ought to be as unlooked for as a restoration of sight when the organization of the eye is destroyed, or "the functions of the brain, when the substance of that organ is reduced by disease to a pultaceous mass." And yet, it is to be considered that a simple affection of the lungs, however extensive, is seldom the cause of death in consumption; there are generally superadded other organic lesions, which, though secondary, are nevertheless, often more immediately fatal than the primary affection itself. Thus, the colliquative diarrhœa, which almost always attends consumption, and is the result of tubercular suppuration and irritative inflammation in the alimentary canal, is less within control, and induces death more rapidly, than the most extensive suppuration in the lungs. The affection of the lungs may be participated in by the larynx, the mesenteric glands, and the various parenchymata, constituting a general tubercular phthisis, which, of course must be more beyond the power of medicines to subdue, than if confined to any one organ.—Each of these complications adds to the difficulty of treating the disease—increases the mortality of its character, but forms no argument against the possibility of curing simple pulmonary phthisis.

The difficulty of commanding credence for the existence, and of vindicating the title of medicaments to control so impracticable a disease as tubercular consumption is universally considered, will probably be as great as finding the remedies themselves. While the sanability of chronic bronchitis, chronic pleurisy, and the other imitations of consumption is generally admitted, it is contended that the disease on which the process of tubercular softening depends has never yet been amenable to art. And yet the researches of Laennec have shown, what the experience of every day since his time has tended more and more to confirm, that phthisis not unfrequently undergoes a spontaneous cure. Pathological examinations continually reveal the appearances of

cretaceous remains which can only be regarded as evidences of the former existence of tubercular deposites; while the investment of pulmonary cavities by new membranes, or their obliteration by cicatrices, where tubercular symptoms were apparent in life, must be looked upon as conclusive proofs of the same fact. It may, indeed, be said that in every case of chronic phthisis an attempt at cure is made by nature, and in most established, the final success of which is only limited by the extent of new disorganizations exceeding that of the reparatory process. To aid the vital recuperative powers in so desirable a proceeding it would be only necessary to apply sufficiently early, a medicament which should so neutralize the morbific cause as to induce a change in the constitution incompatible with the further progress of the disease. This may not be easily accomplished, but it ought not to be deemed beyond the reach of art.

Modern investigations of disease show that the blood, of all the constituents of the body, forms the most important part in the production and continuance of morbid changes, and they, also, prove that it can be modified in its character by aliments and other agents —both of which we are in the practice of regulating and administering with this view. Equally distinctly recognized, at this day, are the vital and plastic properties of this fluid, and, it follows, the extension of its office beyond the supply of materials for the secretions, to the production of such formations as tubercles. The knowledge of these important facts has directed the attention of physicians to modifications of the physical properties and inherent qualities—vital or electrical—of this fluid as the real causes of a great variety of diseases Among morbid affections there is none in which the phenomena, indicating alterations in the blood, are more apparent than in consumption. Hence, there is not only no necessary reason for despairing that such a change may be produced in it, and its accompanying diathesis by medicaments, as may effectually cut off the source of tubercles, but the considerations above mentioned present much ground for hope that these effects may be easily attained. Indeed, it may reasonably be inferred, from the comparative diminution of deaths from this terrible malady, as exhibited in recent tables of mortality, that this change and a subsequent cure takes place more frequently than the public, or even the generality of physicians are aware—the latter too often regarding recoveries from reputed consumption as evidences of error in diagnosis. It is certain that if the blood be once changed, and the formation of matter checked, there is nothing in the structure of the lungs denying to the lymphatics or veins an ability to remove by absorption that previously existing, or to prevent the cavaties formed by expectoration from healing. "All that we know of the action of the absorbents leads us to believe that they are capable of removing tubercles; and that such an operation, to a certain extent, does really take place, is proved by the changes which that substance undergoes in its progress to the cretaceous formation."

It has been shown, in a previous number* that the blood, in its arterial, exists in a different electrical relation from that of its venous state, and several reasons were given for considering that the difference between them attained a higher exaltation in phthisis. In the same number† it was contended that in the process by which a tubercle was formed the capillaries, which pour out the matter constituting it, are enlarged from an increased expansible force, the result of a subversion of the ordinary equilibrium, or change of healthy proportion of the electrical fluid, imparting an undue preponderance of positive force. Based upon this discovery in regard to the blood, we have built up the superstructure of the electrical pathology of tubercular phthisis.

Now, it is a fundamental law of electricity, as at present understood and explained, that all bodies similarly electrified repel each other; and it is, further found that they communicate the properties they possess to intervening substances. When two currents of electricity possessing the same kind of energy are brought into contact they not only repel each other, but intervening substances, as a feather, partake of the repulsion, and each of its component fibres becomes self-repulsive, and in fact, expanded. So in magnetism, if similar poles be brought together they not only repel each other, but, there can be no doubt, that if the force of cohesion in the magnets could be overcome, every molecule would exert this repulsion to every other molecule; and it is easily demonstrable that if iron filings be interposed, they will manifest this repulsion by occupying a greater space, or as in the case of the feather, by expanding. Bodies, then, be sides being rendered inductively magnetic or electric are expanded by these forces.‡ The opposite phenomena of attraction and contraction which appear on the approach of bodies dissimilarly electrified, the proximity of opposite poles of magnets, or of the posi-

---

* Number 2, page 22.

† Ibid 2, page 90.

‡ Sherwood's motive power of the Human System. page 23.

tive and negative poles of a galvanic battery on bodies having free motion, are pretty well known to common observation, or manifestly follow from the converse of the previous law. These properties are common to all kinds of matter, and can be made apparent, at least in all substances having free motion. It is, therefore, no more necessary that animal tissues should consist of any particular structure to be endowed with contracti ity and expansibility than any other matter; the arteries, for instance, may possess these properties in an eminent degree without their coats being necessarily muscular, and the muscles without their substance being elastic. Upon these universal laws we found our ideas of the origin and progress of consumption and the application of medicines to its cure.

It was also stated, in our second number, that as the elements of nutrition are supplied to the capillaries, in common with every other part of the body, by the blood, unaltered from its arterial state, it must be obvious that not only the capillaries but all the tissues must partake of the nature of that fluid The blood, again, deriving its properties from the air we breathe, and the aliments we take must be modified by the conditions of these sources of vitality. If, from the unsuitable state of these elements to the wants of our system, a redundancy of electricity flow into the circulation,the proportion which exists in the healthy state of the blood must, of course, be altered, and a corresponding effect will be produced on the several tissues to whose nutrition and various functions it is subservient. In health we may suppose, the quantity of electricity received into the system, and essential to the process by which the tissues are maintained and renewed, bears an exact ratio to the quantity discharged in the operation by which the debris of the same tissues is eliminated from the system. The molecules of matter which are deposited by, or repelled from, one set of vessels in the former process, are attracted and removed, in their turn, by another set in the latter, and thus an equilibrium is maintained. But cœtaneously with the presence of disease this equilibrium is subverted—there is either a preponderance of action on the part of the secretories or of the absorbents: though it is proper to admit that in some diseases there may be a deficiency of action in either or both of these structures. We have presented several considerations, for our belief that a change in the electrical condition of arterial blood, giving to it a higher state of positive excitation, is the first and most important link in the chain of phenomena constituting consumption. If this be true it is the necessary and obvious source of the force which gives rise to the expansion of the extreme vessels, whence tubercles spring. The general effect of this change or disturbance is to impart a preponderance of action to the function of secretion in the organs chiefly affected; and, it would seem, an increase of absorption pervades every other part of the system.

It will, probably, be considered worth while to enquire whether the condition of the capillaries implied in the last sentence be true, and whether, if true, it admits of a satisfactory explanation on our principles. There is certainly in every case of consumption a formation of morbid products in the lungs, and a general waste of every other part of the system. The whole tenor of our essay shows that we consider the former a consequence of an expansion of the capillaries enabling them to transmit more than the healthy proportion of fluid. According to our view a preponderance of electricity in the blood, acting as a morbific cause, operates to accelerate the secreting function in the organ to which it is specially attracted, and we consider this a satisfactory explanation of the first effect. But in what way is the colliquative diarrhæa and profuse-sweating—forming the sources of the waste which are as distinguishing characteristics of consumption as the presence of tubercule —produced? Are they the result of the same cause, or is there a different and opposite one produced from the attraction and absorption of the electrical energy in its action on the secretory function? We shall have occasion to notice this subject again!

Another equally important though, perhaps, more explicable question is, why a particular tissue or tissues come, in preference of all others, under the influence of a cause which appears to attack the whole system through so general a channel as the circulation? This is one of those arcana of nature, belonging no more to consumption than to any other complaint, but which it has been thought as impossible to reveal as the fact is considered certain. It may, however, be supposed in explanation of it that as the blood is both the common pabulum for the supply of all the tissues, and the vehicle which conveys the cause of disease to those tissues, particular relations may arise between the agents so conveyed, and the different seats of disease. In consumption the morbific electrical blood may pass through the capillaries of various tissues in a state so far opposite, in regard to electrical tension, that no disturbance of function or derangement of properties may be produced. but when arrived at a structure with the properties of which they bear a peculiar electrical affinity they may excite a disturbance which,

commencing in a slight change of function, becomes, by long, continued action, a serious lesion of structure. But, in truth, it is not the case in consumption, nor, in any other disease, that any one tissue is affected to the exclusion of all others The glandular system and serous tissues may be more prominently involved in this disease, but the nervous power, the digestive mucous membranes, the skin, and even the bones participate in the general ruin. Still, there is a manifest preference given to a particular tissue, but no more than its chemical construction, or particular function, would cause to result from the presence in the blood of a morbific matter for which it had an affinity.

In offering this brief opinion respecting the mode of operation of actions so minute and obscure, we shall be satisfied to be considered as making an approximation to a rational explanation. The importance of the subject justifies every plausible attempt at its elucidation; for when we shall be enabled to determine the nature of the attractions that constitute disease, we shall have advanced far towards an ability to explain, with the certainty that attends a physical fact, the origin of disease, and even to predict its progress. The quantity of morbific energy required to produce disease, the actions and changes it induces, the kind and quality of an article required to cure it will follow. The sources of this knowledge have been overlooked, or have been supposed to be beyond the reach of investigation, but with the delicate and improved electrical instruments of the present day in our hands we need not apprehend failure in undertaking the analysis of the most minute physiological or pathological processes. It is a knowledge to be attained by careful, and no doubt elaborate experiments on the electricity developed by the atmosphere we breathe, and by the changes aliments undergo in the process of nutrition, and by noting their effects on the different tissues, guided in all our efforts by a sound physiology. Nor is the subject, great as it is, to be considered so vast and complicated that the genius and industry of man—of a Liebig for instance—may not be adequate to reduce all the phenomena to the simplicity of the plainest physiological facts.

If our view of the pathological state of consumption be correct, it is clear that the grand principle of therapeutics must consist in restoring a healthy equilibrium to the capillary system. While the preponderance of positive electricity continues in the blood—this constituting the prime morbific cause of the disease; no approach can be made towards this effect, it is, therefore, indispensible to a successful treatment of consumption, that this great fact should be understood and its existence counteracted. All medical reasoning proves that living parts are endowed with a tendency to relieve themselves from the operation of disease, and to repair the damage it may have effected, provided the exciting or morbific cause be removed. The whole power and scope of remedies probably consist in simply neutralizing the morbific causes of diseases, and thus enabling the affected vessels, or other structures, to recover their natural and healthy condition by having removed from them all stimulus to extraordinary action. In acute diseases this may take place very soon after the excitement is withdrawn, but in chronic ailments a long continued expansion of the vessels imparts to them new habits which may prevent their recovering their natural properties long after the cause is neutralized Consumption being the effect of a protracted and continuous exposure to a cause, in all probability constantly operating, it is evident that the disturbance of equilibrium in the forces acting upon the capillary system, must, if it cannot be checked by counteracting agents, go on, continually adding to the original evil, till it comes to a fatal termination. The vessels which form the tubercles may be the natural capillaries of the tissues, but modified by the cause which determines the character of the structure they are intended to supply, or they may be, also, a prolongation and new growth —caused by the redundant expanding forces brought into operation; and by this modification or new growth the identity of the tubercles is preserved and nourished. The creation of these new formations forms the stage of the disease which is understood as tubercular phthisis; it posseses a character entirely different from that which constituted the disease at its origin, and which, under the term tubercular cachexia, consisted simply in derangement of the blood and other fluids, with, perhaps, a very slight expansion of the capillaries. Though occupying the secondary station in the relation of cause and effect, this stage assumes the position of the actual disease permanently established as a part of the living structure.

As the predominance of morbid action in Consumption is to the side of expansion, with its consequences of local turgescence and the deposition of new substances it is obvious that the therapeutic indication is to administer medicaments which will neutralize or annihilate a preternatural state of the blood, be attracted to the diseased parts, and there act on the capillaries as lesseners of expansible force. The same principles of treatment will apply to the new formations, because it is the character of all such depositions to be stamped with the properties

of the immediate tissue in which they originate, or rather, by the condition of the blood in the capillaries supplying that tissue. If the electrical state of the medicaments employed be one opposed to the electrical state of the blood they must, upon entering the circulation, tend to neutralize that state; and, it follows, if received into it in sufficient quantity they may change it to even an opposite condition. Neutralizing or changing the properties of the original morbific agent may constitute, in fact, the sole remedial agency of a medicament; but if we conceive its action as further directed to the expanded and enlarged capillaries that furnish the matter of tubercle, we can readily understand that it must dispose them to contract, they being also in an opposite electrical state, and resume their natural size and healthy functions. By diminishing or cutting off the supply of diseased fluids to a tubercle, its growth must not only be stopped, but at the same time its constituents must be placed in a state favorable to decomposition, and thus brought within the sphere of action of the absorbents.

The facts and arguments that may be adduced in support of the opinions that there are medicines which have this mode of action, and that it depends upon their electrical relation to the diseased structure, appear quite as conclusive as those brought in proof of any other explanation of the operation of medicines. We see from the action of tartar emetic in restraining hæmoptysis, and the acetate of lead in controlling uterine hemorrhage, that these salts must be carried to the capillaries of diseased organs, and there, by diminishing their expansion, stop the discharge, strengthen the tissue and cure the disease. Antimony is universally recognized, by the profession, as possessing the power of being determined to the capillaries generally, and of exerting a local effect in diminishing the turgescence of inflammation and congestion. But mercury with less evident effect on the general circulation acts, perhaps, even more on the capillaries, and with apparently greater power of determination to diseased parts. To the class of medicines which enter the circulation, and are capable, by a local determination and certain electrical affinities, of diminishing the expansion of diseased capillaries, iodine unquestionably belongs. The property by which this powerful medicament removes enlargement of the thyroid gland and scrofulous tumours, is undoubtedly by diminishing the calibre of their capillaries, and thus cutting off the supply of fluids by which the diseases are maintained. By contracting the expanded absorbents in dropsical affections, it brings them into a healthy condition, and imparts the tone that fits them for renewing the appropriate function that was lessened or suspended by their unnatural dilatation. That it is simply by restoring the natural size and healthy tone to the absorbents, and not as commonly supposed, by stimulating them to extraordinary action that iodine acts in promoting the absorption of tumors, abscesses and dropsical fluids is a fair inference from the trivial fact that many persons get fat under its remedial operation.

The evidence that medicaments exert a special effect on the capillaries has been rendered stronger by the demonstrations, recent experiments of chemists have afforded, that many of them can be detected in the blood, the urine and in the saliva of persons who have taken them. It must, indeed, be regarded as a fundamental principle of therapeutics, one on which is based the utility of the physician, that every medicine has a special action on some tissue, and this effect though modified by idiosyncracy, or some equally inexplicable circumstance, is apparent in every individual, and whether administered through the stomach, by injection into a vein, or by absorption from the surface. This general action of a medicament proves that it is not the result of mere sympathy, mechanical action or local irritation, but that it arises from a specific physical cause producing a necessary and unavoidable effect in the diseased part it acts upon. What more rational explanation of this influence can be offered than to consider that there exists an electrical affinity between the properties of the medicine and those of the capillaries or structure whose functions it is administered to modify and does modify? This manner of considering the *modus agendi* of medicines may bring together substances which have heretofore been cousidered as having no affinity of action, as well as separate such as have been closely allied. But though, if the principle were adopted, this might be a cause of temporary confusion, it will be found on examination to substitute simplicity for complexity.

This view of the operation of medicines affords a plausible if not a satisfactory explanation of that enigma in their action by which, after mixing with the whole mass of the blood, they are attracted to one organ in preference to all others. In every disease there is an inevitable change of function, or greater or less change of structure of one or more tissues or one or more organs, which change must produce altered chemical states, and consequently a different electrical relation from what existed in health, or exists in the rest of the body. Let us suppose that the extreme vessels, or the minute parenchymatous structure of a diseased organ presents a

preternatural electro-positive condition. If now we introduce into the circulation a highly electro-negative substance as a medicine, what will be its relation to the disease? Unquestionably there will be a very great mutual attraction between the diseased tissue or organ and the medicine---a strong affinity for each other, which will continue till each is satisfied, neutralized, and, if the electrical deviation from the natural state of the part constitute the disease, till it be cured? Like the special determination of the causes of disease, medicaments may pass through the capillaries of various tissues without producing any action upon them, but when arrived at one for the properties of which they have a special affinity, a new action will be set up which must be either beneficial or injurious. But when the two opposite electricities of a disease and a remedy meet in the same organ, a mutual change of electrical properties in the two species of matter must take place, which ought, upon the general principles of electricity, to be accompanied by movements tending to restore both the functions and structure of the diseased part to a state of health. This view of the state of the fluids and vessels in disease, and of the action of medicines, may be too electrical for those who imagine it to be impossible to explain the phenomena without a special power like a vital force, but it certainly accounts for the recognized and unexplained fact that certain medicines have specific determinations to diseased organs. The subject is an important one, and, as it is obviously a fruitless labor to seek for an explanation of it in the mysteries of vital action, it is worthy of further examination on our principle. When our knowledge respecting the manner in which medicines act on the different tissues becomes accurately known, we shall be able to lay down positive rules for their administration, and with a confidence that we can predict unerring results. Already has the view we have taken of their action in tubercular disease aided in laying the foundation of a more minute and accurate knowledge of its pathology, and established, in the minds of a few individuals, a more rational and consequently more effectual mode of treatment than has heretofore prevailed.

Heretofore the principle on which physicians have acted in attempting to cure diseases, has consisted, chiefly, in eliminating from the system, by gradual but highly exhausting means, the supposed morbific cause. Bleeding, in addition to some reputed, but vaguely understood properties of relieving the vascular system, is considered a powerful agent by which portions of morbific poison may be abstracted. Purging, with a similar effect on the vessels, expels it from the living body, by stimulating its excretory functions, and discharging the products of its increased action through the natural emunctories. Emetics and diaphoretics, and indeed the whole class of stimulant remedies, are viewed as relieving the system in a similar way. It is only in a few diseases, as in syphilis or psora, that specific remedies are administered with a view to neutralize a poison supposed to exist in the blood; and of their mode of operation no explanation has been offered, with the exception of one by Hahnemann and his followers, worthy of a moment's consideration.

The knowledge that these classes of medicines are capable of removing morbid phenomena has been arrived at solely by observation and experience, and, therefore, exclusively upon empirical principles. Upon these sources of information physicians are still dependent for their perception of the properties of remedial agents, and their effects respectively on the animal system. The difficulties attending the determination of the value of medicines administered on this principle are acknowledged to be great; and they are unfortunately considered insurmountable. There is nothing in the known physical qualities of substances administered as medicines which would indicate their effects on the living body; nothing, for instance, that would assure us of the purging properties of Jalap or Rhubarb; and still less that would explain the manner in which they produce this effect, or foretell the relations to the tissues by which they remove disease. Equally indeterminate must be the knowledge of the quantity of purging effect required to elimina: from the system the noxious poison constituting a disease. But if we satisfactorily ascertain that disease consists essentially in an extraordinary electrical state of the blood, or of a particular tissue, there can be little difficulty in determining *a priori*, upon the general electrical relation of a substance, the action it will have on the blood, the particular tissue, and the whole animal economy. Looking at this subject with the greatest amplitude of view, it comes within the probable range of science to be able to subject the whole phenomena to calculation, and to fortell the precise quantity of a given substance required to cure a disease.

In the arbitary division of the elements of matter into electro-negative and electro-positive, adopted by chemists, nearly every medicament, which has been found or even thought to be useful in the treatment of tubercular consumption, belongs to the former division. It must be regarded as a strong confirmation of our view of the electro-positive character of the disease, and of the action of remedies, that simple experience or

chance should have directed physicians to this choice. The whole subject of the empirical treatment of consumption offers such momentous strength to the positions we have assumed, that it is desirable a survey of the facts that can be adduced in their support should be taken, and we shall, therefore, devote some space to an examination of the more important articles, belonging to the class of negative electrics, which have been administered as remedies in consumption. It is proper to remark that some of the articles are considered negative electrics from the negative character of their chemical elements rather than from its having been experimentally ascertained that that is their true condition.

Oxygen. Pneumatic medicines are a class from which, reasoning *a priori* we should be disposed to look for considerable benefit in phthisis; and, accordingly they have been much employed. At the head of the list, and of electro-negative substances, is oxygen gas. As the respiration of an impure atmosphere is the grand cause of tuberculous disease, so the respiration of oxygen gas would seem to be the natural remedy. In practice, however, it has not been found advantageous, and consequently its employment has long since fallen into disuse. Administered alone, or even largely diluted with common air, it has proved so uniformly too stimulant, and so much increased some unfavorable symptoms, that though it has seemed to occasion relief in others, its use could never be persevered in a sufficient length of time to determine all its effects on the disease. From the general qualities of the gas and the use it is known to subserve in the function of respiration it might reasonably be inferred that it would excite inflammatory symptoms in the lungs of consumptive patients already too rapidly consumed under the natural process of respiration. In conformity with this reasoning it is found, experimentally, that the most obvious effects of its respiration are increased activity in the aortic and pulmonary circulation, succeeded by languor and extreme debility. Although it is necessary in phthisis to moderate the positive-electrical state of the blood, it seems also equally necessary that its general arterial qualities should be lessened, or be desanguified, and it is obvious that this latter effect is not to be obtained by the inhalation of oxygen gas. The respiration of pure air is indispensable to the treatment of consumption but it would seem that increase in the quantity of oxygen does not impart this purity; and hence the inference that no more ought to be used than exists in the natural state of the atmosphere. Freeing this element from extraneous impurities, in the manner we have explained under the head of "Cause and Prevention of Consumption,"* but retaining its usual proportion of oxygen, and its other respirable constituents, is the best way of purifying the atmosphere and affords the best form in which oxygen gas can be taken into the human system. Atmospheric air, rendered artificially pure, and modified in temperature to the wants of the patient, in the way we have described would, undoubtedly, be in the most favorable state for preventing the disease, as well as be a powerful auxiliary to remedial means. It is probable much advantage might be derived from the administration of oxygen into the stomach, in a form which would admit of its free evolution after entering the circulation.

Chlorine.—This gas, like oxygen, has of late years, frequently been administered in consumption, and, apparently, with a larger promise of advantage than any other remedy of this character. Its inhalation, largely diluted with common air, generally relieves the dyspnoea, and not uncommonly allays the cough; but it is subject to the objection which has caused the abandonment of oxygen, of often irritating, instead of soothing the enfeebled and excitable bronchial apparatus But its occasionally injurious application, though an argument against persevering in its improper use, is none against its trial where it may probably be beneficial. The diversity in its properties and action, does not admit of its taking the place, vicariously of oxygen in the function of respiration, and requires that it should be administered with great caution. Like oxygen it might have, and indeed, has been found to exert a better influence over consumption when administered through the stomach in a solid form, in combination with a substance for which its affinity is so weak, that it can be easily disengaged after entering the circulation.

Iodine.—The inhalation of iodine, in the gaseous form, has been found to have the advantages and disadvantages of chlorine. Its action in consumption as an alterative, through the circulation, will be considered hereafter.

Bromine from its analogy to iodine, was early tried in the diseases in which the latter had been found efficacious, and the result has demonstrated that it possesses value as a therapeutic agent. Like iodine it has a marked alterative action, and acts, in cases adapted to its use, by imparting contraction and healthy tone to the vessels of the lymphatic system; and thus promoting absorption, which it is thought to do with more energy. It does not appear that it has been

* Number 3, page 137.

employed in consumption, but having been found useful in bronchocele, scrofula, hypertrophy of the heart, and other congeneric diseases, it would probably prove a valuable adjuvant in that complaint.

Arsenic has been employed in phthisis in the way of inhalation. Its relation to other bodies as a highly electro-negative substance would have caused it to be spontaneously suggested, to one holding the opinions of the writer, as probably useful in consumption, and it has been found on other views, to be decidedly advantageous in the disease. M. Trousseau, who advises its employment, does not pretend that it will absolutely cure pulmonary tubercles, but he thinks the general symptoms may be so far modified by it, as always to produce improvement in the condition of the patient.

It may be remarked of arsenic, as of the whole class of substances used in inhalation that unless they enter the circulation and assimilate, or, at least, mix with the blood like oxygen, they can have but little influence over a disease of so general a character as consumption. However useful as local medications in laryngitis, and the various affections of the air passages, they for obvious reasons, can have little salutary influence, over parts with which they do not come in contact. Most of them are so repulsive to the respiratory apparatus that they cannot be admitted to the lungs, unless largely diluted with common air, and thus reduced to quantities too minute for any beneficial effect over such a disease; and, besides, there is no evidence that any of them, with the exception already set forth, are capable of entering the circulation. For these reasons we have forborne to notice many articles that have been employed in consumption, though most of them are electro-negative in their chemical characters—such as fumigation with tar vapour, watery and medicated vapors of various kinds—because they have not been found sufficiently efficacious to prevent their falling into disuse.

Hydrocyanic Acid.—This powerful sedative has been given in phthisis. Like many other of the remedies employed in this destructive disease, it seems to have failed to obtain desired, perhaps unreasonable results, and after a few trials by eminent men in various countries, it has been generally proscribed as too dangerous from its poisonous qualities, and too inert in its medical action. But its acknowledged eminently sedative qualities, its influence in diminishing irritability, its power of reducing the pulse, and of calming many of the symptoms of fever have prevented its falling into entire disuse. Its use is certainly indicated in those complications of phthisis which are attended with an excessive or morbid sensibility, and those depending on a highly irritable state of the nervous system. Granville considered it almost a specific in tracheal phthisis; and in chronic bronchitis undoubted proofs of its efficacy have been recorded. Magendie asserted that he employed it with success in all cases of morbid irritability of the pulmonary organs; and Elliotson says he has almost invariably succeeded in allaying the troublesome cough of a great number of pectoral affections. Dr. Frisch of Denmark has been quoted as successfully employing the remedy in several cases of phthisis; and finally, Magendie asserted and maintained that with prussic acid he had cured individuals, having all the symptoms of incipient phthisis, and even those in a more advanced stage. Amidst the conflicting testimony regarding its properties, we cannot consider it as entitled to any extraordinary reputation in pure phthisis pulmonalis, yet it has been so often supposed to act beneficially in the hectic connected with it, at the same time moderating the force of the circulation, suspending the night sweats, and diminishing the hardness and frequency of the cough, that we have no doubt it may be advantageously used as a general palliative in almost every case of the disease.

Cod Liver Oil.—Independent of the electro-negative character of the principle constituents of this article, it has been found to contain appreciable portions of iodine and bromine. It has long been popularly used in Europe, in scrofula and consumption, but has only within a few years attracted the general notice of physicians either in Europe or America. It has been much lauded in Germany and Switzerland as a remedy in these diseases, and has been given in this country, it is asserted with advantage.

Naptha—has been lately brought forward with a good deal of confidence as a remedy in consumption. Its introducer reported that he had successfully treated a number of cases by its means, but like every other remedy for consumption, it has failed in the hands of other persons. Though upon some chemical considerations a hope might be indulged that it could effect other results, yet, upon others, we can hardly feel surprised that it has failed.

Digitalis.—We have classed this powerful article of the materia medica among electro-negative bodies, but whether accurately or not, we are at present unable to determine. Concerning its virtues as a remedy in consumption, medical writers have differed more than in regard to any other medicine; some, even, having gone so far as to

assign to it the properties of a specific in this dreadful disease, while others have denounced it as pernicious. Equal diversity of opinion has existed in regard to its mode of operation; it having been considered by some a direct sedative, and by others a powerful stimulant; though little doubt exists, among the generality of practitioners, at the present day, that it belongs to the former division. Its utility in hæmoptysis, in the febrile excitement, and in the nervous irritability that accompany and complicate consumption is generally acknowledged. The testimony is so general in favor of its freedom from any injurious effects on consumption, that there are few cases, especially in the advanced stage of the disease, in which its sedative virtues may not be applied as a means of reducing increased action of the heart, thereby tending to abate inflammation of the lungs, and lessen a general excitement of the system; while in all cases it may be occasionally used advantageously as a palliative.

Antimony.— According to Dr. Good,* some pathologists had, at the time he wrote, lately adopted the practice of giving very small doses of antimony, in its soluble preparations, dissolved in a very large quantity of water, and continuing it for an almost indefinite period of time. Viewed as an electro-negative, or alterative in its action, and administered in doses to produce a corresponding effect on the system, instead of an emetic or nauseating operation, it is probably worthy of a high consideration. "The once celebrated anti-hectic of Poterius, consisted of oxide of antimony, and tin." Where fever runs high, or bronchial inflammation is a concomitant of consumption, antimony administered on ordinary principles, may be considered a valuable adjuvant to more important means of correcting the tubercular diathesis; but it ought to be given in minute doses, on account of its tendency to produce depression of the vital powers.

Quinia—The analogy between the remissions and exacerbations of consumption and those of malarial fevers long since suggested the propriety of giving peruvian bark in the former as in the latter disease. Quinia possessing all the anti-intermittent power of the bark, and at the same time concentrating its general negative electric qualities, may be better capable of exerting all the peculiar influence of that medicine as an alterative and tonic, as well as a neutraliser of electro positive morbific influence, and therefore be better adapted to the treatment of consumption. Administered in a suitable stage, at proper times, and in appropriate doses, there is no medicine more efficacious in strengthening the organs of respiration, and in counteracting the debility induced in the animal economy by the long continued irritation of diseased lungs. Numbers of physicians have reported cases of consumption which they believed have been cured by this medicine simply conjoined with nutritious diet; and it accords with our observation to allege that several cases have been arrested, and even cured, in very advanced stages, by alternating quinia with hydrocyanic acid and some other medicines that will be hereafter mentioned.

Cicuta.—The value of small doses of narcotics, frequently repeated, in all chronic ailments is well known to the profession. They are peculiarly important in all affections of the lungs of this character, and they act upon this organ with a particularly kindly influence, for the well known reason that the respiratory nerves are more affected than any others of the system by them. It seems too, that, at least, some of them have a more sensible electric effect on the animal frame than any other class of medicines; for when acetate of morphia is administered in full doses, the patient is attacked with shocks like those from an electrical machine.* In the inflammations of the cellular and parenchymatous substance of the lungs, in chronic pneumonia, and in the phlegmasia of the mucous membranes, which, as in chronic bronchitis, sometimes accompany tubercular phthisis, narcotics are indispensible. The exhausting irritation occasioned by the tubercles themselves, demands some narcotic which may diminish the sensibility of the nervous system, allay pain and promote sleep. By lessening the morbid sensibility in the ulcerated surfaces connected with the tubercles, as well as in the membrane of the bronchia, narcotics aid the alterative, tonic, and other action of the remedies in which we place our chief reliance for the amelioration and cure of the former, as well as the operation of the appropriate remedies directed to the latter. Of this class of medicines the salts of morphia have the best effect in a number of cases, but we have generally preferred the cicuta, partly on account of its supposed efficacy in allaying irritation and curing ulceration connected with a scrofulous taint, and partly because it seems to relieve the pain better, and diminishes the discharges of phthisis

*Study of Medicine, Vol. 2, p. 510.

*Cyclopedia of Practical Medicine, Vol. 3, p. 367.

more than any other narcotic, while it is free from a constipating, and some other of their bad effects. Administered with due regard to the stage of the disease, habits of life, temperament and idiosyncracy of the individual it has none of the uncertainty in its operation which has been frequently assigned to it, while it exerts a very salutary effect in diminishing the force and frequency of the pulse and allaying the violence of the cough. It may be safely said that if we ascertain by experience the condition of the system in which cicuta has no untoward effect, and keep it in view, we shall be able to prescribe and continue the use of it in consumption with a generally useful effect.

Mercury is the lowest in the list of electro negative substances, for which any well founded claim of efficiency in the treatment of tubercular phthisis can be established. In the form of the chloride, the occasional use of mercury enables us to relieve the bowels from the morbid accumulations which so frequently collect in tuberculous cases, and to restore to the liver the healthy action from which it has such a constant tendency to deviate in this disease. In that variety of phthisis in which it is complicated with an enlarged and indurated liver, and perhaps of other abdominal viscera, and which is known by Dr. Wilson Phillip's term of dyspeptic phthisis, it may have been found a valuable remedy. Mercury was much employed and strongly recommended by Dr. Rush and some other physicians, in every form and stage of the disease. In recent times there are no decided testimonies in proof of its success; and though it may promise relief in the cases referred to by Dr. Phillip, yet even in these, except when a purgative is required, a much better effect may be obtained from the article we are about to mention.

Gold.—The medicines which experience has shown have the most decided effect in diminishing the expansion of the extreme vessels—particularly those of the glandular system—and therefore promise the greatest advantage in tubercular phthisis, are the preparations of gold.

The oxides and salts of this mineral have experienced the influence which caprice and fashion exercise over medicines; for they have been alternately employed with high popularity, and dismissed as undeserving of any reputation. Like countless numbers of therapeutic agents, they have been brought into notice by high encomiums on their value in disorders, over which they either had no influence, or one no more powerful than cheaper and more available means, and, consequently, after an ephemeral reign, they have passed into neglect. Properties have been attributed to them of which they are quite devoid, while, on the other hand, they are endued with therapeutic virtues which they have not been considered to possess. As in the use of every other medicine, which cannot lay claim to the character of an absolute specific, the activity of the preparations of gold depend, greatly, on the condition of the system into which they are introduced. Besides, in examining the properties of a remedy, it must be remembered there is no one that, however useful in the majority of individuals, may not, from what is understood by the vague term idiosyncracy, (but which should rather be called a misunderstood relation between the remedy and the affected tissue) be inactive or even injurious in the smaller number; and this is sometimes the case with the medicine we are now examining. Manifesting a salutary, peculiar and decided effect in ninety-nine cases, a hundredth would occur which would seem to be unsusceptible of its remedial action. Moreover, the expense of the material has been always a weighty objection to its use, and a frequent source of failure; for it induced the fraudulent to announce preparations as containing gold, which had none, and thus the absence of effect was assigned to the inaction of the remedy. Notwithstanding these difficulties, the deductions of science, confirmed by the observations of several physicians, have revealed to us that gold possesses qualities for subduing complaints, in which its fitness has been wholly overlooked, or considered as presenting but feeble claims upon our attention. This has been found the case in the terrible disease which forms the subject of these tracts. The important truth conveyed in this declaration we do not expect to be at present acknowledged. Until the evidence in relation to the therapeutic properties of gold becomes generally known to physicians it is not probable it will receive that fair and public trial to which its promise of utility in phthisis, and its congenerie class of affections, acknowledged to be beyond the control of any other remedial agent, intitles it.

We are indebted to Dr. Chrestien of Montpelier, as the earliest among modern physicians, for inviting the medical faculty to a re-investigation of the properties of gold as a remedial agent. He, however, limited his enquiries to its applicability to the treatment of syphilis, and a few other lymphatic disorders. Since he published his essay, the attention of the medical public has been called by Eberle, Neil, Legrand and other physicians to a more extended applicability

of the salts of Gold to the treatment of diseases. They show, with much reason, that the preparations of this mineral may be used with great advantage, not only in the diseases in which it was employed by Mr. Chrestien, but in the treatment of scrofula, particularly when it affects the soft parts of the human frame, as the skin, the serous membranes, and more especially the lymphatic glands both external and internal. The analogy between tubercular depositions and scrofulous consolidations could not fail to suggest to a philosophical mind that there was probably some common agent which would be found possessed of properties calculated to modify the state of the blood from which both diseases arise. And the discovery of the efficacy or gold in the latter class of ailments would, naturally, upon reasoning on the fact, based upon experience, that the medicines which have been found the most successful in their control, afford the best groundwork for the treatment of phthisis, give rise to the belief that it might be serviceable in that disease. Accordingly it has been introduced, with this view, by Dr. H. H. Sherwood of New York. Physicians in this country, are much indebted to him for the diffused notice he has given of its efficacy, administered on electrical or magnetical principles, in the treatment of the whole class of tuberculous ailments, and more particularly of tubercular phthisis.*

The general effects of the preparations of gold, in moderate doses, are to improve the appetite, produce a sensation of warmth in the system, and give increased fulness without adding to the frequency of the pulse. In addition to these a prominent effect appears to be an increase of the various secretions; commonly the urinary discharge is largely augmented, as well as the cutaneous transpiration, and there is an increase of the intestinal and salivary secretions. From the decidedly styptic taste of most of these preparations, the sensible and peculiar impression they produce on the fauces and salivary glands, they must be regarded as astringents. When introduced into the system, whether by application to the gums, an abraded surface, or through the stomach, they seem to be specially determined to the glandular system, and if their capillaries are expanded, give them tone to contract; possibly not unlike, regarded either in cause or effect, the operation of a simple astringent applied to an external sore.

The salts of gold are all, in large quantities, decidedly poisonous. According to the experiments of Orfila, when given to animals with this object, their deleterious effects are manifested by a direct action on the lungs.† He found that a very small quantity of the chloride of gold injected into the sanguiferous system proved speedily fatal from its action on that organ;—death being preceded by difficulty and rattling in breathing, cough and symptoms of suffocation. On dissection immediately after death, the lungs are found injected, and the arterial blood of a brownish red, almost black color—shewing that it is in fact desanguified and analogous to the effect produced on it by diminishing or cutting off the volume of air respired. Bichat found in experiments undertaken with this object, that while the trachea was left open, the blood of the carotid artery, laid open, flowed of the natural vermillion color; if half closed it became brownish; if wholly stopped black. Thus under the moderate use of gold, we may expect the blood to assume the appearance and character of that in an animal, which does not breathe a sufficient quantity of air, and in excess to induce as complete asphyxia as if deprived of air. The effects of agents so potent, when pushed too far remedially, but short of absolutely poisoning, are, besides those on the blood, oppression in the region of the stomach, nausea, vomiting, pains in the abdomen and diaphragm, a metallic taste in the mouth, augmented secretions of saliva, excited pulse and oppressed breathing; all affording evidences of local determination to particular organs. There may exist,

* Dr. Dickson the vain and egotistic author of a novel and ingenious publication on the theory and practice of medicine, which he calls the chrono-thermal, claims, as "exclusively his own, the electrical doctrine of medicinal agency." When this writer first made and gave his discovery to the world we do not know, but the republication of his work in this country, affords no evidence that it was anterior to 1836. Now, it may be safely said that there has not been for the last forty years, a reflecting physician in either Europe or America, who has not surmised, at least, that the action of medicines depended upon their electrical properties; and, for a large part of that period, Dr. Sherwood has expressly taught, in numerous publications, the importance of considering the action of medicines on the human system as exclusively dependant on the evolution of their magnetical or electrical forces, (See Motive Power of Human System, by H. H. Sherwood, M. D., Page 52.) Besides, it appears to the writer, there is nothing in Dr. Dickson's application of his exclusively electrical doctrine, different from what has been for many years, explained in Treatises on Therapeutics.

† Toxicologie Generale.

besides, inflammation of some organ, commonly the lungs; and a general irritation and true febrile condition may be developed —indicating that it is capable of a general action on the system.

The consideration of the way in which a medicine, entering the general circulation, acts upon one tissue in preference to all others has been already referred to, and weil be reverted to hereafter. But as it is regarded as one of the enigmas of medical science, the cause of which admits of no more satisfactory explanation than that of the motions of the planets in their orbits, we shall be excused for taking some notice of it on the present occasion Embarrassing as this important secret has been to physicians in all ages, it appears to admit of the following simple solution—at least in regard to gold administered in phthisis pulmonalis. It has been a principle object of our labors to show that tubercles arise from an expanded state of the capillary vessels causing their engorgement, and a deposition of albuminous fluids.* This condition, we have contended, is dependant upon an increase of electro-positive excitation in arterial blood. The administration of a medicine in an electro negative state, must obviously tend to neutralize the state of any part or any fluid in the human body, in an oppositely electrical condition. Now, according to the division of the elements of matter by Berzelius, already referred to, gold stands at the bottom of the electro-positive class, and united with chlorine, as it commonly is in medicine, it occupies a still more decidedly negative position. The condition of the blood and the pulmonary capillaries, in a phthisical patient are, then, in an opposite relation to that of the remedy, and therefore, it must be clear to every reflecting mind, they must attract and neutralize each other. Admitted into the circulation, the electro-negative gold must alter the opposite state of the mass of the blood, and thus counteract the diathesis in which the disease arises: and its approach to the organ or tissue in which the capillaries are expanded and diseased, must, upon recognized electrical principles, cause a tendency in them to resume their natural and healthy action. Perseverance in a remedy, acting upon this principle, and administered with a proper consideration, in regard to quantity, to the living structure it has to act upon, must, sooner or later, bring the blood and the capillaries to the standard of health, and thereby afford the circumstances that are not only favorable to, but, if fatal disorganizations have not taken place, will certainly admit of the natural recuperative process repairing the local injury.

It is not intended to limit the action of gold to its electrical operation, or to deny that it may have what is commonly understood by an alterative effect. While exerting the special effect due to its electrical energy, it probably has some separate general action on the various parts of the animal economy. That it has an influence independent of its electrical relation to the diseased structure is further probable from the consideration that its salutary effects are greater than that of substances of higher electro-negative powers. If there be such a class of medicines as the alterative, the influence which the preparations of gold exert over many of the secretions and excretions, and over the nervous system itself, constitute them one of a most efficacious kind. In no disease is there more need of a means of altering or checking actions, because if suffered to pursue their natural course, they must certainly produce structural changes inevitably terminating in death. Examined on the common principles of therapeutics, the MODUS OPERANDI of no article of the materia medica promises more towards effecting these results in phthisis, than the oxides and salts of gold, and their combination with other substances to be hereafter mentioned, having a similar mode of operation.

Notwithstanding these admissions, it is proper to remark that we are not satisfied gold, in any of its forms, has any other effect on the blood in phthisis, than to change its electrical state; nor, perhaps, is any other needed;—the undue positive state of that important fluid constituting the essential feature of the disease.

Equally beneficial is the action of this medicine over some of the forms of disease that are considered independent of, but frequently complicate tubercular phthisis.—Though it is not our intention to notice in detail these various affections, yet there is one, in which the use of gold as a remedy has so salutary an effect, that it would not be proper to pass it wholly unmarked. This consists in a depraved condition of the digestive organs, and particularly of the alimentary tube. It is not only a complication of extreme frequency, but exercises so great an influence over the progress of tuberculous phthisis, that it is considered almost as important to recovery that it should be removed as that the lungs themselves should be healed. The colliquative diarrhœa which is its final consequence, may be considered as inducing death more rapidly than the most extensive suppuration of softened

* Tract No. 2, page 91.

tubercles in the lungs—the complication, indeed, constitutes the galloping consumption of the public, and the acute or rapid consumption of medical writers. Though considered by some physicians nearly as frequent a cause of phthisis, as the affection called tubercular cachexia, and it may precede it, still it is almost always secondary to the tuberculization of the lungs. At whatever time it may originate, it is an almost certain indication of tubercular disease of the glands in some portion of the digestive tube; of the upper portion, as of the stomach and duodenum, when the symptoms are those of common dyspepsia; of the lower, as of the ileum and colon, when diarrhœa is present. The evidence of this condition of the intestines may be found by pathological examinations, but it is equally certainly known during the life of the patient, by the constant supervention of the peculiar spinal sensibility, (which we have described as the great diagnostic symptom of tubercular disease,) over the regions of the nervous ganglia, which inosculate with the roots of the great sympathetic arising in the various digestive organs.

Our view of this intestinal affection is not new, but it has been so slightly recognized by medical men, while it is so important to any plan for curing consumption, that it should be attended to, that it is not improper to give it a full consideration Indeed, its importance is so great, that it may be said, while simple tuberculization of the lung is a comparatively curable disease, its complication with severe irritation and depraved functions of the stomach and bowels, is almost certainly mortal. Over this form of disease of the digestive apparatus—and whether existing with or independent of pulmonary affection—the preparations of gold have an influence which must be looked upon as one of their most precious attributes. This control is almost certain and facile; and being exhibited over a frequent concomitant of consumption possessing a form which by interrupting nutrition, and prostrating strength exercises a most fatal influence on its progress, it entitles the medicine to a high consideration.

The preparations of gold are very uniform in their medicinal properties, and nearly equally active in the same dose; and, therefore, the observations proper for one preparation will apply to all. In all, their operation in the proper doses, is slow, and requires a considerable time and perseverance for their full development; they are, on this account, the better adapted to constitutional chronic ailments, and such whose removal depends rather upon an alteration of the whole system than a sudden arrest of disease. The affinity of gold for larger proportions of chlorine than for any other electro-negative element renders this combination less easily decomposable, while its medicinal properties for the object in view, are more active, and therefore, it, or the similar preparation of the ter-chloride of gold and sodium, is the form we have most commonly employed. We are aware that the diversity of opinion exists as to the activity of the ter-chloride of gold; one writer, at least, contending that it is not more powerful than the mild chloride of mercury, and others that it is more virulent than the corrosive sublimate. We have inclined to the latter opinion, because on that view, however inappreciable may have been its sensible effects, we have always found its persevering use possessed of sufficient energy; and, therefore, have never given it in larger doses than the eighth or tenth of a grain. To allay the irritation which, in phthisis, as in all diseases, accompanied with new formations always prevails, the addition of cicuta, or some other narcotic may be useful, on the principle of checking the disturbance of the nervous system—the removal of which disturbance is of secondary importance, only, to the alterative action of the gold on the morbid structure itself. But when gold is administered with the object of obtaining its exclusive effects we have made it into pills according to the following formula:—viz:—

℞

Ter Chloride Auri.—grs. ij
Chloride Sodii,—ʒ j
Amyli,—ʒ ij
Gum Arabici,—ʒ j
Aquæ distillatæ q. s. m

The mass is to be divided into 16 or 20 pills, one of which may be given two or three times a day, and gradually but slowly increased. On account of their tendency to deliquescence and decomposition, they must be kept in a well stopped vial, and in a dry place.

(TO BE CONTINUED.)

ADDITIONAL REMARKS ON

PROF. SEUTIN'S STARCH BANDAGE.

More Particularly in reference to a "Certain Modification of it."

BY ALFRED MAREWICK, SURGEON, LONDON.

If I have been guilty of leaving a blank in my paper "On the Use of the Starch Band-

age in the treatment of Fractures,"* in consequence of not having alluded to Mr. Christophers' "modification,"† I fear I shall be considered equally culpable by MM. Velpeau, Mayor, Laugier, Lafarguede, St. Emilion, and Van Meerbeck, for having taken no notice of theirs.

My communication was intended to point out the importance and advantages of Professor Seuten's Bandage, and his alone in the treatment of fractures, believing as I do, that all modifications of it, or additions to it, are both useless and unnecessary, and open to far more weighty objections than have at any time been raised against the original. It will not be necessary for me to substantiate this statement inasmuch as Mr. Christophers has himself already done so in that portion of his paper taken from Dr. Pigeolet's "Esquisse Historique sur le Bandage Amidonne."

It is true, no objection has been raised, either by Professor Seutin or Dr. Pigeolet, to Mr. Christophers' "Indian-rubber straps," and therefore I ought, perhaps, in this gentleman's opinion, to have made some allusion to them. I would have gladly done so had I considered that they were in any way essential or indispensible to the construction of the bandage amidonne. Had they been so, M. Seutin would have been the first to immediately avail himself of them. Now I can confidently assert that during the whole time I was in attendance at the Hopital St. Pierre, at Brussels, I never once witnessed their application, and I may refer, for confirmation of this fact, to Professor Seutin's writings subsequent to the publication of Mr. King's paper in the *Medical Gazette*, in which Mr. Christophers' "modification" is made known, for in these we find that no mention whatever is made of them. I may however, for this gentleman's satisfaction, quote the following paragraph from Dr. A. Didot's article in the *Abeille Medicale* for July, 1844, p. 155; Et je dois avouer que je ne vois pas le moindre inconvenient a ce que leurs idees, (those of Messrs. King and Christophers,) soient adoptees dans le traitement des fractures lorsque l'opportunite se presentera. But this does not show that the "straps" are an indispensible addition to the perfection of the bandage in question; and I can but think that had they been of that importance, Dr. Pigeolet would have done more than merely mention them. He would undoubtedly have characterized them as a valuable innovation, free from objection, and would have recommended them as an effectual means for remedying a defect which the starch bandage certainly (but for a very short time only) possesses.

These "straps" are intended to enable the apparatus to adapt itself to all the variations in size which the injured limb is liable to undergo. But it appears to me, that in employing them, we avoid Scylla to fall into Charybdis, as I shall by and by attempt to prove. And, moreover, we possess more effectual means (those recommended by Professor Seutin himself) for obviating the evil.

In his reply to the following objection to his bandage, made by M. Mayor—namely, that "it forms a case so resisting that it can neither dilate nor contract on the limb during its alteration in volume," Dr. Seutin says, (p. 195, *loc. cit.*,) "How is it that after all I have said in order to show that the starch bandage is remarkably *dilatable*, and that it may be *drawn in* at pleasure,—that after having proved that its application permitted of the parts being daily inspected with the utmost facility, when such an inspection became necessary,—how is it, I say that after all this, my bandage is represented as a kind of case which must invincibly preserve its primitive form, without being able to adapt itself to the development or the diminution in size of the contained organs? I can only account for this singular circumstance by admitting that M. Mayor has not read the different memoirs which I have published on my method of treating fractures, and by afterwards supposing that the cases he has seen have given him a false idea of the true principles by which my invention has been directed." * * * * * * "If an apparatus would permit us to constantly maintain the fragments in the same position, from the commencement to the end of the treatment, and is also capable of being tightened or slackened and will enable us at the same time to inspect the soft parts, and apply to them such remedies as their condition may require,—if, I say an apparatus permits all this, we shall then be at liberty to state that it fulfils all the indications that are furnished by sound therapeutical notions on the subject of fractures." "These are precisely the qualities by which my bandage is distinguished."—At pages 141 and 142 of the same work, he says, "One of the greatest advantages of my starch bandages, and one which decidedly distinguishes it from the apparatus of the French surgeon, (alluding to Larrey,) consists, then, in my opinion, in the facility one has notwithstanding its employment, for following step by step, as it were, the progress of the injuries of the soft parts, with-

* June Lancet, page 541.

† July Lancet, page 44.

out the coaptation in the least degree suffering. Strong scissors which I have had constructed expressly for this purpose, enable me to cut, without difficulty the anterior surface of the apparatus, which for this reason I take care to render of as little thickness as possible. I thus obviate the defects of slight compression if it is badly exercised; I suppress it if it appears to augment the local stupor, or if it cannot overcome the violent reaction which ensues; on the contrary I continue it if I find on inspecting the limb, that the patient's complaints arise either from his pusillanimity or apprehension. If local therapeutic remedies are thought necessary, I make use of them, and then, in some cases apply a piece of linen on the internal surface of the apparatus in order to prevent it from being soiled by the applications employed; I afterwards bring the two valves together by means of an unstarched roller. By removing this every day, the dressings can be applied as often as it is thought necessary." * * * * * "When the incision is made and the limb is found to require no topical application, the two valves are united by means of a starched roller, and the original solidity thus becomes restored. When the swelling has disappeared, and the bandage has, in consequence, become too large for the member, I remove with my scissors, from its anterior part, a longitudinal band of greater or less width. After moistening it a little, I mould the pasteboard on all the inequalities of the limb, by the aid of a starched bandage."

In another place, (see *Abeille Medicale*, for August, 1844,) when speaking of its advantages in cases of compound fracture complicated with delirium, he says, "If the modus operandi of our bandage is known, the security it gives under these circumstances will be understood. By its methodical compression it puts a permanent obstacle to the contraction of the muscles; by forming with the leg, the thigh, and the pelvis, a continuous whole; and by exactly and firmly embracing these parts, it prevents the movements of the rest of the body from being commuicated to the solution of continuity, and if we have that, it cannot become deranged; we shall have the principal conditions for securing such a state of immobility of the fragments, that should the patient by chance get out of bed and walk a few paces on the injured limb, few, if any, accidents would be the result." Again, "It (the starch bandage) compresses the muscles throughout their whole length, and momentarily deprives them of the greater portion of their contractile force. By embracing the whole extent of the limb and its sinuosities, it affords to every part of it resisting surfaces which prevent the displacement that is likely to be produced by the remainder of the muscular action, and the natural elasticity of the tissues, and keeps up a degree of extension and counter-extension, which, in opposition to that of other apparatus, we will call passive. In short, by its circular contentive action, it forms resisting splints, which encircle the pelvis, extend over the limb in every direction, and cannot allow of any displacement either in its natural direction or in its diameter." "Its compression is less than in any other, *cæteris paribus*, when it is intended only as a contentive means, because it is more in harmony in its distribution with the physiological and pathological conditions of the organ, and because it more directly counteracts those forces which tend to destroy coaptation, and moreover, there is economy in its employment. It is graduated—that is to say, that in twenty-four hours after the application of the bandage, this is transformed by the longitudinal section into an exact mould of the limb, which is at once suppple, elastic and resisting, and of which we are always able to determine the degree of compression."

In alluding to the space left between the limb and the internal surface of the bandage by the desiccation of the latter, M. Deroubaix makes the following remarks: "Nothis so common as to see the inconvenience that is sometimes caused in certain parts by the compression of the newly-applied apparatus, insensibly disappear at the end of twelve or twenty-four hours. These facts seem to deprive the bandage of one of its prerogatives, by showing its compressing properties to be at an end the moment it becomes completely dry. But M. Seutin has had the ingenious idea of constructing it in such a manner as to make it represent a kind of bivalve apparatus, the sides of which though firmly united may nevertheless be brought nearer together by certain means, until their primitive relations become completely re-established. This modification appears sufficient to restore to it the properties which its desiccation has caused it to lose, and to definitively maintain its efficacy until the end of the treatment. The manner in which the starch bandage effects the restoration and the retention of the fragments in their proper relative positions, may be considered as composed of two very distinct modes of action: the first comprehends the compression of the ruptured bones; the second consists of a double effort of extension and counter-extension. The compression of the fragments presents an adaptation of the remedy to the evil—a security in

its results which would be sought for in vain in the other apparatus to which I have alluded. It is no longer as is the case with splints, that vague and uncertain property of producing coaptation that is assigned to one or more solid bodies which appear to cause the disappearance, on one side, of the abnormal bony projections, only to allow them to reappear in another. Neither is it, as in the method 'a suspension,' that contentive force attributed to a flat surface, which is to support a round body in an invariable position, and which, as it does not act itself, cannot maintain the reduction any longer than during the time the limb remains in contact with it by virtue of its own weight. On the contrary, its action is uniform, regular, and constant, adapted by its circular quality to the shape of the organs which are about to receive it, and produced by a force which seems to have calculated all possible displacements in order to oppose them on all sides at once." * * * * * "The projections and depressions are alike under its influence, because the starch bandage is able to present depressions to the former and elevations to the latter. The muscles being compressed on all sides with the same intensity, and in a perpendicular manner, experience an obstacle to their contraction, which would tend to produce displacements, and yet cannot in any way avoid the action of the compressing means. They remain motionless because they can find no place towards which to direct themselves, in order to exercise their functions with more freedom."

MM. Simonart and Pourcelet make the following observations, bearing on this point. "If the shrinking of the fractured limb has left too large a space between it and the bandage, (a fact to be ascertained by percussion of the starched case producing a clear sound, by inspection, and by the introduction of the finger between the soft parts and the apparatus, &c.,) or if the vacuum is trifling, the portions of the bandage intervening between the pasteboard are to be softened with water, and then by well-directed manipulations, to be adapted to the shape of the parts; assistants contribute with their hands to the contraction, which the surgeon completes, and maintains by means of a starched roller more or less tightly applied. If, on the contrary, the diminution in the size of the limb is considerable, the longitudinal section of the bandage ought to be preferred; in that case remove from one or both valves a piece corrospodding to the hollow that exists, or else bevil off the borders, each in an opposite direction; moisten with warm water the parts of the apparatus intervening between the splints, and make the thinned edges lap one over the other. The solidity and even the immobility of the bandage may, if necessary be restored by applying a starched roller round the hardened case, after it has been covered with a coating of starch."

In Dr. Pigeolet's "Exquisse," we find the following paragraph, quoted from a thesis by M. Thomas: "Sur la compression de l'appareil inamovible."—Perfect contention of the fragments, immobility continued until the cure is completed, solidity in the apparatus, by which the patient is enabled to move about, simplicity in its composition, economy in time to the surgeon, and expense to the patient—such are the advantages of the appareil inamovible amidonne.—In simple fracture unattended either by laceration of the integuments or injury to any important vessels or nerves, if the bones are not comminuted, and the soft parts are not reduced to a pulp, one of the best means for preventing the inflammation, or for arresting it at its commencement, is an uniform compression of the injured part."

These extracts will, I think, be sufficient to prove the importance and the capabilities of the starch bandage, and to show the facility with which it can be made to fulfil every indication.—*Lancet.*

Effect of Electro-Magnetism on the Action of the Heart,

Let an electric stream, by means of a magnetic-electric rotation apparatus, pass through the medulla oblongata of a frog, when the palpitations of the heart will cease as long as the rotation is in action; and it will begin again, in the same way as before the experiment, a few seconds after the rotation has ceased. This experiment produces, in fact, tetanus in the whole of the body. When any other part of the spinal marrow is exposed to the same electric stream, tetanus is equally produced; but the heart continues its movements without interruption. Finally, when the whole skin of the frog is subjected to this stream, so that one wire lies close to the heart, tetanus in the whole body is produced, but without affecting the heart. Directing the stream upon the ramis intestinalis nervi vagi, lying before the lungs, produces the same effect as upon the medulla oblongata.—*Lancet.*

On The Treatment of Chronic Diseases of the Skin.

BY THOMAS HUNT, ESQ., M.R.C.S. ENG., HERNE BAY.

Order VII.—Tubercula.

THIS order comprises nine genera, six

of which— viz : *Phyma,* (boils,) *Verrucca,* (warts,) *Molluscom,* (a very rare disease,) *Vertiligo, Elephantiasis,* and *Frambœsia,* (diseases of foreign climes)—require no farther notice. The three remaining genera—namely, *Acne, Sycosis* and *Lupus,* deserve a separate consideration.

Acne.

Acne is is a disease of the sebaceous glands, consisting of a process of sluggish inflammation in these organs, tending slowly to suppuration. It commences with clusters of small elevations, or pimples, with conidal summits, which, having slowly completed their suppurative course, discharge their contents, die away, and give place to others. Willan speaks of four varieties—*Acne Simplex, Acne Punctata, Acne Indurata,* and *Acne Rosacea.* The first three more correctly describe the different stages of acne complex than different species. The latter (acne rosacea) has a distinct character.

Acne Simplex commences with small elevation in the cutis of a red color, on an inflamed base, which slowly secrete a purulent matter. Clusters of these pimples, with conoidal acuminated summits, varying in color, red, yellow, or black, are often seen disfiguring the face of young persons at the age of puberty. The disease is generally confined to the face, neck, and shoulders, and is most common on the forehead and chin.—The eruption, if left to itself, gets better and worse, but generally lasts from two to seven years, commonly disappearing at mature age, but occasionally continuing for several years beyond. Nor has it always been found an easy task to arrest the progress of the unwelcome visitor. Lotions of a stimulating kind, such as a weak solution of the bichloride of mercury, appear serviceable for a time, but rarely prove of permanent benefit.

The perils attending the usual mode of administering arsenic have hitherto presented a sufficient objection to its use in a disease attended with no danger and little inconvenience. But a long experience of the absolute safety of decreasing doses, and of the power of the medicine over cutaneous affections generally, suggested to the writer, a short time ago, the propriety of testing its efficacy in acne simplex. The few opportunities of trial which have since presented themselves have inclined him to the opinion that acne may always be cut short by persevering in small doses for a few months, provided the system be otherwise in health. The following cases will afford a sample of the general results:—

Case of Acne Simplex on the face, Cured by Arsenic.

A. B———, a pretty servant girl, aged nineteen, has been for the last three or four years disfigured by an eruption of acne simplex, in its various stages, on the forehead, chin, upper lips, and cheeks. Her general health is excellent. Arsenic was prescribed for her on the 30th September, 1845.

October 21st, 1845.—She has taken five minims of the liquor potassæ arsenitis thrice a day with her meals, steadily for three weeks, and her face is now quite clear of pimples, excepting one or two, which have not had time to run their usual course. No fresh elevations have appeared for a week. The conjunctiva is not affected.

Case of Acne Indurata on the Shoulders, Cured by Arsenic.

Miss N———, aged twenty-one, has an extensive eruption of solid elevations, surmounted by black points and pustules, answering to the appearance described by Willan as marking the variety called acne indurata, on the skin covering the deltoid muscle in each arm, and extending partially across the back. The pustules are occasionally sore, and irritated by the dress, and are always unsightly. The disease has existed nearly seven years. She is in good health. The face is clear and the complexion healthy.

November 25th, 1844.—The eruption is copious on both shoulders. Five minims of the solution of arsenic were prescribed to be taken three times a day with the meals, with an occasional purgative, her bowels being constipated. This was persevered in for three months, without inconvenience on the one hand, or visible improvement on the other.

March 10th, 1845.—She has now taken the medicine for three months and a fortnight; and a great improvement is visible during the last fortnight. No new pustules have formed, and the old ones look indolent and fading. The conjunctiva is inflamed. The arsenic to be continued in reduced doses, and a lotion of birchloride of mercury applied sparingly.

May 6th.—She continues to improve.—The pimples are small, and appear to partake more of the character of enlarged papillæ than of pustules.

July 2nd.—Quite well ; the shoulders are as smooth as other parts of the surface.

The appearance of acne in young females has been supposed to indicate some abnormal condition of the uterine secretion. The experience of the writer has not tended to

confirm this opinion. In both of the cases above detailed, the menstruation was perfect and regular throughout, and the first appearance of the discharge seemed to have no influence over the eruption.

Acne Rosacea.

Acne rosacea is an inveterate form of acne simplex, but it differs much from that disease in some particulars. Instead of appearing at the age of adolescence, it belongs rather to the decline of life, commencing at the middle period; and instead of spontaneously disappearing after a time, it usually gets worse and worse, unless checked by medical treatment, till death. The locality of acne rosacea is also peculiar. Instead of appearing in the forehead and chin, its seat and centre is almost invariably the point, or, more rarely, the alæ of the nose, from which it radiates laterally, gradually extending over the cheeks, and affecting the adjacent skin in all directions. The point of the nose first becomes redder than natural, especially after meals, or on exposure to cold or heat; the veins of the part become visible, then pustules form, and slowly progressing through their stages, leave the skin permanently thicker than natural, and puckered with small cicatrices. In its advanced stages, the disease sometimes disfigures the face to a frightful extent; and being, in a few cases, the penalty of dram-drinking, it becomes particularly afflictive to the temperate, in whom however, it is at least as common. Like other forms of acne, it attacks both sexes, and occasionally occurs as a degeneration of acne indurata of long standing. But the subjects of acne simplex are more generally exempt from acne rosacea.

The treatment of acne rosacea has been hitherto unsatisfactory in its general results. Rayer says, the disease "almost always returns after medicines are abandoned, with a rapidity and regularity that induce dispair,"* This is strong language, and from a man of Rayer's experience, most discouraging. Indeed, so general is the impression that it is incurable that patients rarely seek medical advice for this disease, and still more rarely do regular practitioners undertake the cure in a methodical or persevering manner. Certainly, among the numerous and ill-defined varieties of this disease there are two, the recovery of which cannot be reasonably expected. 1. The disease is in some cases hereditary, and, perhaps, likewise congenital. Early in life the nose is slightly affected by the disease, and by degrees becomes incurably hypertrophied and deformed. The writer has more than once known it complicated with an irritable condition of the rectum and with chronic hæmorrhoidal affections, the irritation oscillating from one extremity of the intestinal tube to the other. These disorders can be *alleviated* by medical treatment, but there is something originally wrong which probably can never be rectified. 2. The acne rosacea of the drunkard, connected frequently with visceral disease, is placed by the habits of the patient out of the control of medical art. With these two exceptions, the varieties of acne rosacea present nothing which justifies an unfavorable prognosis, much less despair.

The following "very instructive case," as Dr. Chambers described it, furnishes a proof, which cannot be impugned, of the therapeutic powers of arsenic in this disease.

Case of Acne Rosacea in a middle aged lady, Cured by Arsenic.

Mrs. N———, a lady of temperate habits, clear complexion, and good general health, had been complaining for some weeks of languor, lassitude, headache, hysterical globus, and chronic diarrhœa. These symptoms were treated variously, but with little success for a time. At length, on the right ala of the nose a small number of accuminated pustules appeared elevated upon an inflamed base, and having the genuine character of acne, but more closely crowded together than they usually are in that disease. These soon became covered with a purulent incrustation; other pustules appeared in the neighborhood, until at length the whole ala, with a continuous portion of the cheek, became occupied by the disease, and presented an ugly and hypertrophied appearance. As a portion of the crust became separated, other pustules appeared underneath, and a second crust was formed, which, when detached, discovered other formations, on a larger base and involving a deeper portion of the subcutaneous tissue. There was no pain or itching, and, except on approaching the fire, no sensation of heat. The crusts were surrounded by a small areola of a dull red color, rather inclined to a brown shade, but never exhibiting the livid color of lupus, which disease it nevertheless, in some respects resembled.

Dr. Chambers saw the case within two or three months of its commencement. He pronounced it acne rosacea, gave a guarded prognosis, and prescribed arsenic, of which the first dose was taken on the third of January, 1844, and continued on the plan de-

* Rayer's "Treatise on Diseases of the skin." English Translation, p. 476.

tailed in the preceding cases, for three months, by which time the disease had entirely vanished, and the hypertrophied cellular tissue was reduced to its normal condition. Any doubt which might have been entertained concerning the agency of the arsenic in the cure would have been dissipated by the ultimate history of the case. The patient now left her home "for a week"—was actually absent five weeks, neglected her medicine, and returned home with another tuberculous incrustation, which, commencing on the original spot, had now spread more horizontally over the cheek, and seemed to take a more superficial hold of the integuments than the former attack.

May 10th.—The arsenic was now resumed, and taken steadily till the middle of July. Before the end of May, however, the disease had again disappeared. The medicine was persisted in for two months subsequently, with a view to prevent a return; notwithstanding which precaution, the disease was only kept at bay for twelve months, not radically cured; for in the following July, (1845,) the old enemy reappeared, evidently, however, in a milder form than heretofore; for now the arsenic put him to flight in ten days, and was steadily persevered in for two months afterwards. At present there appears no probability of a relapse. A considerable indentation, like a bad variolous scar, was left by the first attack; the latter attacks left no scar.

The diarrhœa, headaches, and hysterical affections, retired as soon as the arsenic had hold of the system; and the patient has enjoyed excellent general health since the termination of the first course. The conjunctiva became affected as usual, synchronously with the subsidence of diseased action, both local and constitutional. No external application was used, nor any potent internal medicine, after the first exhibition of the arsenic.

The reader's attention is particularly solicited to three observations suggested by this interesting case:—1. The decline of the disease, on three distinct occasions, under the steady use of arsenic alone, independent of external applications, changes in diet, or other circumstances of regimen; its repeated relapses after neglecting the medicine for a few weeks, and its (probably) final disappearance after such a protracted course of reduced doses as seemed to destroy the very tendency to mobid action: these circumstances demonstrate the absolute control which this wonderful medicine exercises over tubercular diseases of the skin, and holds out a strong encouragement for its lengthened trial in cases of longer standing. 2. The morbid condition of the nervous system, and the extreme irritability of the intestinal canal, in circumstances which would generally be held interdictory of the use of arsenic, were, in this case, not less clearly relieved by the arsenic, than the cutaneous affection itself. 3. The resemblance of this case to lupus, both in the locality primarily affected, and in some similarity of general appearance and history not easily described, seems to suggest, if not establish, some relation between this disease and certain forms of acne rosacea, and if it throws no light on their cause and origin, it indicates a morbid condition of the general system, susceptible of successful treatment by a similar alterative plan. The writer has further the satisfaction to state that he has had an opportunity of carrying out this indication with the most entire success, in a case of lupus exedens, of many years' standing.

The two varieties of acne which have now been discussed belong properly or principally, to two distinct and distant periods of life, respectively—viz., acne simplex, to puberty; acne rosacea to the meridian or decline of life. There is a third species, pertaining to the intermediate years, and seldom met with either in the morning or the evening of human life. And whereas the principal seat of acne simplex is the forehead, and of acne rosacea, the nose, the variety now under review occupies only those parts of the face which in the male subject are covered by the beard. It is known by the name of

Sycosis, or Mentagra.

This disease has all the characters of acne. It is described as confined to the male sex; but the affection, is, in fact, more commonly met with in the female, being in the fair sex generally described as acne. It is usually more severe in men, for obvious reasons. The irritation constantly inflicted by the razor, and often mistaken for the original cause, the augmented development of the hair follicles in men, which become implicated in the disease, and the incrustation resulting from the adherence of the discharge to the beard, which becomes an incidental source of inflammation,—all these circumstances contribute so much to the severity of the disease, that it often becomes truly formidable, presenting a hideous mixture of pustules, tubercles and incrustations. "Arrived at this stage," says Rayer, "sycosis is always an obstinate disease, the cure of which is never obtained but with great difficulty." Compared with this, it is mild in the female, but, nevertheless very annoying and disfiguring. The description already given of the rise and progress of

acne simplex applies accurately to sycosis, excepting that the latter disease is confined to the chin, cheeks, upper lip, and submaxillary region, and the resolution of the pustules is usually attended with a feeling of heat and tension in the parts they are to occupy. The writer has not been able to meet with any recorded case in which arsenic has been administered in this disease. Indeed, it is generally regarded as originating in external causes; the cure has therefore been attempted by local means alone, of which the most essential is the plucking out of every single hair of the beard in the affected parts. This is surely a mistake. The cause of sycosis is always constitutional, although its aggravations may be dependent upon local sources. Arsenic rightly administered will rectify the constitutional disorder; and if, at the same time, the local disease be treated with that attention to cleanliness and external management recommended by all writers on the skin, the disease will prove as tractable as the other varieties of acne. The following cases illustrate the sufficiency of arsenic alone when the disease occurs in the female:—

Case of Sycosis in a lady, complicated with Neuralgia; both affections cured by Arsenic.

Miss S——, aged twenty-five, (or upwards,) a brunette, of naturally clear complexion, had suffered from frequent attacks of neuralgia in the facial nerves. Early in the summer of 1844, she experienced a return of her old malady, which destroyed her rest except when procured by opiates. The chin and lower part of the face generally became affected with a sense of heat, tension and pruritus, which sensations were in a day or two succeeded by an eruption of small red points, tending to suppuration somewhat more rapidly than usually occurs in acne simplex, but yet presenting an appearance exactly similar to that disease, the dark points appearing here and there, and the subcutaneous integuments being very sore, and more or less involved in the inflammatory process. The forehead and the nose wholly escaped the disease.

June 21st, 1844.—The eruption has existed about three months, and has continued by successive crops to this time, gradually getting more troublesome. The patient is weak and thin, and is suffering from extraneous causes of anxiety; but the general health is otherwise good, and there is no interruption of any natural function. She this day consulted the writer on account of the neuralgic affection. No external application was used, but the following medicine was prescribed—viz., Fowler's solution, one drachm; distilled water, seven drachms; mix. Forty minims to be taken thrice a day in the beverage usually taken at meals.

June 30th.—The pain has left her. She sleeps well, and is looking better. The eruption is fading, and the skin is paler and less occupied by red points. Slight conjunctivitis. The dose of arsenic was reduced to four and afterwards to three minims of Fowler's solution.

August 1st.—The eruption has quite disappeared. She has had no relapse of the neuralgic pain, and is in perfect health.

Case of Sycosis in a female, complicated with Dyspepsia; both diseases yielding to Arsenical treatment.

Miss T——, aged twenty-seven. The eruption in this case was so exactly similar to the one just described, (exeept that it was confined to the point of the chin,) as to render further delineation unnecessary. The dyspepsia was treated with aperients and alkaline tonics for a fortnight, and a diluted solution of bichloride of mercury applied to the face, without any amendment becoming apparent in the eruption, and with but little improvement in the dyspeptic symptoms.

The arsenical treatment was commenced on the 11th of August, 1845, and in little more than a week the stomach had resumed its healthy tone, and the skin was nearly well; but she neglected the medicine, and before the following Christmas, both complaints returned, and are again yielding to arsenic.

Both of these patients were of mature age, and had been free from the cutaneous affection at the age of puberty. The skin of the forehead was sound, and the disease was somewhat more acute in its character than acne simplex. It commenced too early in life for acne rosacea; besides which, the nose escaped entirely. The disease was therefore mentagra, or, more probably acne menti. In both cases the disease, with its respective complications, yielded readily to arsenic. Not a doubt can be entertained of the constitutional origin of this disease; and calm reflection on the primary characters of sycosis in the male sex, will lead the observer not only to identify the disease with acne, but to perceive the necessity of prescribing an alterative course in connection with local applications. The writer regrets that he has not as yet had an opportunity of giving this kind of treatment a trial in that aggravated form of the disease which is peculiar to men, but he cannot entertain a doubt as to the issue.

Lupus.

Lupus is the next genus in the order tubercula. This disease has many names; and the cognomen Lupus is applied by authors to two or three very different diseases. Rayer describes two varieties—namely, *lupus exedens* and *lupus non-exedens*, to which M. Biett adds a third—*lupus with hypertrophy*.

The first of these ulcerates from the surface inwards, and leaves deep excavations; the second spreads and ulcerates horizontally; the third rarely ulcerates at all. The two latter are tubercular diseases and are comparatively rare in this country. The former, *lupus exedens*, or *noli me tangere*, is a frightful disease, difficult of cure, and when cured, leaving behind it more or less of deformity. To this disease the writer will at present confine his observations. He is disposed to agree with Mr. Plumbe in doubting whether this form of lupus is strictly of tubercular origin. It is, in fact, a chronic cutaneous inflammation of a peculiar character at once indolent and irritable, but often for a time devoid of pain; of a livid color, commencing generally in a small portion of the ala of the nose or the circumference of the nostril, and speedily tending to phagedenic ulceration. The ulcers are covered by dirty-looking adherent scabs, which on desquamation, discovered a surface moistened by a glutinous exudation, soon drying into a new scab; and this, on its separation, disclosing deeper excavations, until not only the sub-cutaneous tissues, but eventually the cartilaginous structure, of the nose is eaten into. The disease commonly extends to the upper lip, and the gums of the upper jaw. The whole of the nose, upper lip, gums, and incisors of the upper jaw, and even portions of the bone, have been known to be sacrificed to the ruthless invader. The lower eyelid and the commissures of the lips are sometimes respectively the seat of lupus exedens, the ravages of which produce suffering and deformity not less deplorable than lupus of the nose.

The causes of this horrible disease are utterly unknown. Its subjects are commonly young and previously healthy women, from the age of sixteen to thirty. The diagnosis is not difficult; but through the too general neglect of the study of cutaneous diseases, and the consequent ignorance of the symptoms of well-defined and specific diseases, the repulsive malady has very often been most inexcusably confounded with syphilis, and the disease has been aggravated by mercurial salivation. In syphilis there can always be traced, at least, a concatenation of secondary symptoms previously developed, and the disease usually commences from within, the cartillages suffering first; and the ulceration, when it appears, has a character of its own, quickly appreciated by the experienced eye. In lupus, on the contrary, the disease appears in persons who have generally enjoyed good health, and in whom neither primary nor secondary symptoms have ever appeared: it first appears in the skin, which is not copper-colored, but livid. The prognosis is generally as melancholy as the disease is horrible. The writer has sought in vain, both in books and hospitals, for a single case in which its ravages have been actually and permanently arrested; although here and there, allusions to cures are found in books. Precepts for its treatment are sufficiently plentiful; but demonstration of their utility is lacking.

The following case will show, however, that the disease may not only be arrested and reproduced at pleasure, during a certain time, but permanently and radically cured:

Case of Lupus exedens of nine year's standing, Cured by Arsenic.

Mrs. S———, aged thirty-two, the wife of an agricultural laborer, had been the subject of lupus exedens for nine years, when she first requested the advice of the writer. The disease had probably been mistaken for syphilis, for she had twice been salivated, (of course without benefit,) and had submitted to escharotic applications, and a variety of treatment, both in hospital and private practice, without the slightest advantage. She had been under the care of Mr. Earle, in St. Bartholomew's Hospital, for twenty-two weeks, and reports that she was treated with sarsaparilla and caustic.

Jan. 5th, 1837.—The tip, both alæ, and a part of the septum of the nose, are already eaten away. A portion of the upper lip and of the gums of the upper jaw have disappeared, and the four incisors of the upper jaw have been sacrificed to the voracious enemy. The remaining portion of the extremity of the nose, the upper lip, frænum, and gums, are in a state of ulceration, and the parts exposed to the air are covered with a dirty, dark-looking incrustation, the edges of which are of a dull livid color. The breath is offensive, indicating deep seated mischief; she has a nasal tone of voice, and there is reason to suspect the existence of a greater extent of disease than is obvious to the eye. She complains of severe burning pain in the seat of the disease, and is "troubled to get any rest." She is emaciated and weak, but otherwise in good health. The parts were ordered to be dressed with a pledget of pure fresh spermacet

cerate, thinly spread upon fine lint, simply to protect them from the oxygen of the atmosphere, and from sudden changes of temperature, no other application being used. Five minims of the liquor arsenicalis were ordered to be taken with the meals, thrice a day, which dose was persisted in with exact regularity for three months, when the conjunctiva became affected. The dose was then and afterwards reduced as occasion required. This plan was uninterruptedly pursued for two whole years, the disease meanwhile, advancing as heretofore, but she at length experienced some alleviation of the pain. The action of arsenic is slow but sure.

January 30th, 1839.—She has now lost all pain, has regained her flesh, spirits and good looks, and has undisturbed rest, but there is no appreciable improvement in the ulcerated surfaces. The disease has committed visible ravages since the commencement of the arsenical treatment, but the patient fancies it has been "at a stand still" for the last few weeks.

January 12th, 1840.—She has now steadily persevered in the arsenic for three years. The conjunctiva has been more inflamed "latterly," but the skin of the nose, lips and gums, is perfectly whole and sound. No traces of ulceration or scaliness are visible, but there are ugly cicatrices and scars, with great loss of substance, and the contaminated breath suggests the idea of disorganized cartilaginous structure.

March 2nd.—There is no visible trace of existing disease in the nose, lip, or gums, but the breath is still offensive. She thinks she has taken cold, and complains of a pain in the chest, dyspœna, and hard dry cough. There is a croupy hoarseness, as well as a nasal intonation in her voice. Pulse 96, firm; skin hot and dry. Fourteen ounces of blood were taken from the arm; aperients, saline, and low diet; discontinue the arsenic.

April 10th.—Quite well, with the exception of foul breath, and nasal tone of voice. No medicine prescribed.

August 3rd.—She has taken no arsenic for five months. There is a slight return of ulceration in the right side of the nostril, but the livid apearance of the skin, and the foul unhealthy character of the ulcer, are not so obvious as before. A small tuberculous elevation also appeared on the left cheek near the nose, which healed over after being touched with lunar caustic. The arsenic was now resumed in small doses, and continued regularly for a month.

Sept. 5th.—The skin is again healed, and has a normal surface.

January, 1841.—She has continued in excellent health for four months, and taken the arsenic to this time. It was now considered safe to dispense with it altogether.

July.—She has taken no arsenic for the last six months. Slight return of ulceration in the nose. Resume the arsenic in doses of two minims of Fowler's solution three times a day. The ulcerated portion of skin healed in ten days, and the arsenic was ordered to be taken for six months longer, which order was faithfully obeyed.

January, 1844.—She has now abandoned the arsenic for nearly two years. There is no return of the disease, but the breath is still offensive.

September, 1845.—She remains well; less fœtor in the breath,

After this patient had taken the arsenic about twelve months, a brown, dirty, and mottled appearance of the rete mucosum was observable, first, on the legs and thighs, then, at the end of the second year, on the trunk of the body, and ultimately on the arms and neck, the face only escaping. This disappeared gradually without desquamation, after the medicine was abandoned. The writer is not aware that this effect of arsenic has ever before been recorded.

In this extraordinary and highly satisfactory case, the controlling power of the arsenic is so perfectly demonstrated by repeated experiments,—the disease uniformly advancing when the medicine was withheld, and as uniformly receding under its influence, until the very tendency to diseased action was absolutely destroyed under its continued use,—that no comment can add any force to the facts. The concurrent testimony of writers on the skin to the improvement of the ulcers of lupus under the topical use of arsenic, is worthy of notice, in connexion with this case. The object for which arsenical applications are recommended is to check the destructive process of the ulceration by exerting a new action on the surface. Is it not more probable that the temporary benefit derived from the dressing is attributable to the absorption of arsenic? Mr. Plumbe seems to be aware of the influence of the internal use of arsenic in lupus, but he does not tell us that he ever succeeded in curing the disease by it. The cause of his failure is unconsciously confessed in the following sentence: "It is proper to *increase the dose gradually*, till some manifestation of tendency to disorder of the stomach and bowels occurs, when it should be *entirely withheld*, and purgatives, with opium, substituted, till such symptoms

have subsided."* I have marked in italics certain words in the preceding extract, to indicate the rock on which practitioners generally split in the administration of this medicine. The writer has administered arsenic in hundreds of cases, but has never observed the slightest tendency to disorder of the stomach or bowels, because he has invariably reduced the dose before it has done any mischief; and probably mixing the medicine with the food has protected the stomach and bowels from injury. It is strange that some writers advise it to be taken on an empty stomach. It may not be unadvisable to repeat that the curative properties of arsenic will always be fonnd to reside in doses too small to be mischievous.

The diseases comprehended in the eighth order of Willan, *maculæ*, (if diseases they may be called, being simply deviations in color,) do not fall under our notice.

Concluding remarks.—In reflecting upon the uniform success which has attended the right use of arsenic, in the treatment of a great variety of diseases, apparently so unlike, one is naturally led to inquire—how does the medicine act? and, what points of coincidence are apparent in this motley group, which may be supposed to indicate uniformity of treatment? To those questions full of interest as they are, the writer does not feel himself in a position to hazard a reply. His present object is to direct the attention of the profession to a series of facts, rather than risk their value on the hazard of a speculative theory. It is certain however, that there must be something in all these cases constitutionally wrong, which the arsenic has the power to rectify. In several of them there was no manifest deviation from health, functional or structural, in any organ save the skin. It may therefore be inferred, as a corollary from the above results, that local diseaes may and often do, indicate a cachectic condition of the circulating fluids, where there is neither any apparent deviation from healthy vascular action, nor any palpable abnormal tone in the nervous system. Beyond this it is difficult to carry our enquiries. It is hazardous to deduce pathological conclusions from therapeutical facts, especially from those which are limited to a confined range. But the field is open for further experiment. It may turn out, at last, that arsenic, though all-sufficient, is not essential to the cure of these diseases. There are other alteratives, probably of equal power, if not of equal promise, which have never yet been tried methodically, or with sufficient care to test their value. To this end it is necessary to try a medicine alone, rejecting the aid of external applications and artificial diet. Without this there can be no advance in our knowledge of the materia medica, whatever we may learn of the general principles of pathology. Our very natural and laudable anxiety to do the very best we can for the relief and restoration of our patients too often tempts us to a course of conduct, which, on the first appearance of difficulty, finds us at fault. If a man would know the value of a remedy, he must use it as he would an instrument determined to try its power and temper, and to operate with it unaided and alone,—not heroically or regardless of danger, but mingling discreet vigilance with a resolute determination not to abandon it.

It is now many years since the writer resolved to try what could be accomplished by arsenic in the treatment of the more unmanageable disorders of the skin, and he confesses himself astonished at the result. He has little acqaintance with other remedies beyond his knowledge of their general inefficiency. He has abjured medicated baths, ointments, and lotions, and excepting for the purpose of reducing inflammatory action where it existed he has placed no restriction upon diet. Moreover, he has, in almost every protracted case, allowed the arsenical course to be interrupted again and again, and generally found he could check the disease, or allow it to advance at pleasure. In this way he has had the satisfaction of establishing the value of this one medicine beyond the possibility of doubt and the reach of cavil, and by illustrating the efficacy of small doses, and thus securing for the medicine an innocuous operation, he has removed the only valid objection to its use—namely, its dangerous properties. Still nothing would give the writer more pleasure than to hear that any one of his brethren had discovered by sure induction, a remedy less objectionable than arsenic, but equally potent in its control over these disorders. This, however, is scarcely to be expected. A medicine, which besides being almost certain in its operation, is safe, cheap, and tasteless,—which can be taken at meal times, through a whole life, if necessary, generally without creating disgust or nausea,—which interferes, in curative doses, with no healthy function,—which gives no pain and inflicts no inconvenience,—has surely recommendations which are not easily surpassed.

There are two or three circumstances connected with the history of the preceding cases which ought not to be overlooked.

1. Especial care should be taken to en-

* Plumbe on Diseases of the Skin. Third edition, p. 55.

sure the purity of the medicine. The necessity of attention to this point is more palpable than may appear at first sight. One would think that a medicine so cheap as arsenic would scarcely be adulterated, and that its well known poisonous properties would always secure a careful and accurate preparation of its formulæ. It is a fact, however, that the arsenous acid, (oxide of arsenic,) sold in powder, is very commonly adulterated with sulphate of lime, and although it is difficult to make the Fowler's solution of such materials, (inasmuch as the gypsum being insoluble in the solution of carbonate of potash, the former will always appear as a precipitate;) yet, that the solution is sometimes prepared in this way, or otherwise adulterated, is more easy to believe than that such enormous doses are taken with impunity as are said to have been administered.* The solution used in all the preceding cases was procured from Apothecaries' Hall, and its operation has been found, at least, as uniform as that of medicines in general.

2. The cases were, for the most part, treated by the sea-side. Whether the influence of a marine atmosphere, or of mere change of air, may account in part for their successful termination, must be left an open question, to be decided by future experiment; but it is right to mention that most of the patients were so circumstanced.

Lastly. Having poin'ed out an eligible method of bringing to a happy termination these annoying and loathsome maladies, the author feels that there is yet an ulterior and very momentous question to be decided, before these results can be contemplated with entire satisfaction.

There prevails in the profession, as well as among the public at large, a *suspicion*, (to say the least) that some of these diseases cannot be *safely* cured at all; that morbid affections of the skin, though severely afflictive, sometimes exercise a salutary influence upon the system at large, acting as wholesome and natural drains, or safety-valves, to the vascular apparatus, and thus by their timely or continuous action preventing the accession of still more serious forms of disease, probably involving the vital organs and sometimes even endangering life. It is impossible to do justice to the merits of this really important and somewhat knotty question, in the limits allotted to this paper; but with the editor's permission, the point will be fully discussed in a future number.—*Lancet.*

* Since the above was written, the writer has ascertained that it was formerly very common for wholesale druggists, in making Fowler's solution, to meet with a precipitate of white powder, which was supposed to be a residuum of arsenic remaining after the saturation of the solution. The practice was to pour off and bottle the clear liquor, and throw away the residuum. Whether, or to what extent this practice prevails at present, is a question to which her Majesty's ministers are probably very indifferent, albeit their lives may one day depend on it.

From the London Lancet.

Liabilities of the Muscle in Disease.

Of epidemic influences that disturb the general health, the voluntary muscles take early and constant notice; for of life, in all its varieties of of action, they are the truest, readiest, and most delicate exponents.—Rheumatism, influenza, diarrhœa, illness, of whatever kind, that is "going about," prevail, by acknowledged symptoms in the locomotive structures of the body. All the animal blights, electrical, contagious, or miasmatic, are necessarily muscular in their development. Observe your patient, then, from first to last, as he stands, walks, sits, or lies; note well his changes of posture; see what he does with his hands; watch his features at their several periods of action and repose; compare them in their separate play. Nothing, be assured, is more truly clinical than such indication, by impaired contractility of disorder in the flesh. Remember, without disparagement of the medicine that works by dissection, analysis, and the microscope, that, while engaged in the contemplation of these muscular symptoms, we have before us nothing less than the actual visible operations of disease. Observing them, we have under our wide, natural eye, not the mere segments of perverted, fast decaying structures, not the shadowy, lenticular spectra of a discharged and damaged fluid, but organs, living and complete, in active relation, through their function, with the blood and all else that is vital in the body. Here, in the Queen's ward, is a woman, (Mary Mc B——,) who tells us plainly, though not in words, of fast improvement and recovery. Near-sighted as I am, I see already, as we approach her bed, that since yesterday, she is better. I see it, and at once in the shape of her features; I know it by the very "wag of her eyelid." In this case, the buccinator and the levator palpebræ muscles express as much of encouragement as could be spoken by the mouth and larynx. Try and remember this patient as we knew her on March 11, when she was first admitted, scarcely conscious, ex-

hausted, inarticulate,—how she lay, and whined, and stared. Day after day we found her stretched, as if by palsy, on her back; her knees were never bent; her hands moved but seldom from her side. In this unnatural repose of all voluntary muscles, we could not fail to recognise the character and intensity of the disorder. The influence that operated to the prejudice of the contractile function, was, in this instance atmospheric, and of the season. It is a case, now convalescent, of the spotted epidemic fever. J. A. W.

A late number of the *Dublin Hospital Gazette* contains an interesting lecture, by Dr. O'Ferrall, on

Abscess with Fistula in the Female Breast Treated by a simple method of Compression.

The single superficial abscess is a matter of daily occurrence, and requiring but little management for its successful treatment. The cases to which Dr. O'Ferrall applies his remarks are very different, and are thus described by him :—

"The breast is enlarged, discolored, and disfigured by a number of fistulous openings, discharging purulent matter. The magnitude of the part is different in different cases, but is sometimes such as to exceed two or three times that of the opposite breast. Its figure is irregular, presenting numerous prominences and depressions, giving to the organ an unsightly and mis-shapen appearance The color of the integuments is unequally distributed, patches of a reddish hue appearing irregularly mingled with the natural tint of the skin. A number of fistulous openings are visible on the surface, each discharging purulent matter. I have counted as many as fifteen distinct orifices in a case of this kind. The pus discharged is generally what is termed healthy—that is, uniform in color and consistence. Occasionally a tinge of blood is mingled with the discharge, if the part has been subjected to much handling or pressure. The orifices near the nipple have, in some instances, yielded a milky fluid mingled with the pus."

The pain is generally very distressing. Pressure made in particular situations immediately causes an increased discharge, and a probe may be passed to a great depth, indicating the existence of sinuses in various directions. The treatment hitherto pursued has been,—1st, that recommended by Mr. Hey—namely, to lay open the different fistulous canals, a most painful and often a formidable operation; and 2ndly, that by pressure directly over the breast, or antero-posterior, as called by the author. He objects to this proceeding, on the ground that many of the sinuses become obstructed by the pressure thus made, and that new and more extensive burrowings take place. He adopts, and with apparent success, the following method instead :—

"Having carefully pressed out the matter from all the fistulæ, direct your assistant to grasp the breast gently in both hands, and draw it forwards as far as possible without causing pain. A breast greatly enlarged, will, in this manner, admit of a remarkable degree of elongation. While the organ is held in this position, you are to pass a strap of brown soap plaster, an inch and a quarter broad, round the part nearest to the chest, beginning underneath, and making the straps cross each other on the chest. Other straps of plaster are to follow in succession each covering a portion of the one preceding until you reach the anterior part of the mamma, where a space is to be left for the discharge of the matter through the fistulous openings. You are next day to apply small compresses over the situations where you had previously felt depressions corresponding to the depots within; over these compresses a few more straps of plaster are to be applied.

"You now take a double headed roller, and pass it from below upwards, so as to make it cross on the chest, and passing under the arms, return over the shoulders to the breast again. This roller is not to be applied with any degree of force. It is a sling—a support to the elongated mamma, and, when properly adjusted, affords immediate comfort to the patient. When speaking of it in the hospital, I term it, in contradistinction to the antero-posterior mode, circular compression of the breast. The breast is compressed in the manner so often beneficial to the limbs."

COMPARATIVE PROPORTIONS OF NUTRIMENT IN ORGANIC AILMENTS.

Messrs. Schlossberger and Kemp, adopting the views of Liebig as to the distinction between the elements of food used for reproduction or growth, and those for respiration, have prepared a table, which exhibits the nutritive power of different alimentary substances, the test of this power being the quantity of nitrogen which those substances respectively contain. The proportion of this element contained in human milk dried at 212° Fahrenheit, being taken at 100, the degree of nutritive power of other ailmentary substances may be expressed by the numbers placed next to them. We select a few of the principal.

"*Vegetable.*—Rice, 81; potatoes, 84; rye, 106; wheat 119 to 114; maize, 100 to 125; oats, 138; white bread, 142; carrots, 150; brown bread, 166; peas, 239; haricot beans, 283; beans, 320.

"*Animal.*—Human milk, 100; cow's milk, 237; oyster, 305; yelk of egg, 305; cheese, 331 to 447; eel boiled, 428; porkham boiled, 807; salmon boiled, 610; portable soup, 764; white of an egg, 845; skate, boiled, 956; herring boiled, 808; haddock boiled, 816; pigeon boiled, 827; mutton boiled, 852; veal boiled, 911; beef, boiled, 942.

"*Purified muscular fibre from various animals.*—Fibre of eel, 908; of salmon, 982; of herring, 914; of haddock, 988; of pigeon, 775; of lamb, 916; of sheep, 928; of calf, 993; of ox, 935; of sow, 893.

"*Proximate principles of animals calculated from the quantity of nitrogen, as determined by Mulder.*—Pure proteine, 1006; pure albumen, 996; pure fibrine, 999; pure caseine, 1003; pure gelatine, 1128; pure chondrine, 910"

It should be observed, that this is a purely chemical way of considering the question. The facility with which these different substances submit themselves to the digestive process, dependent on various circumstances, must greatly modify the nutritive power.—*Edin. Med. and Surg. Journal.*

ON THE USE OF ERGOT OF RYE IN UTERINE HÆMORRHAGES.

At a late meeting of the Dublin Obstetrical Society, Dr. Beatty, read a communication on the subject.

"Having stated the beneficial effects of ergot given after hæmorrhage had set in, he alluded to the injury likely to be produced by the indiscriminate and premature administration of opium in these cases, and pointed out the different times at which the ergot of rye and opium are to be given with advantage, the former in the early stage, when we want to induce uterine contraction; the latter in the last stage, when we wish to restore the exhausted vital powers and nervous energy. He recommended the employment of ergot in cases where there is reason (from experience in former deliveries) to expect hæmorrhage, so as to prevent the occurrence of this formidable accident. He prepares an infusion of one drachm of ergot in four ounces of boiling water: when the child's head has cleared the external orifice, he gives one half of the dose, including the powder, and when the child is entirely expelled, the remainder is given. Dr. Beatty gave the details of several cases in which this practice was followed by comple success. The placenta was thrown off in all without any difficulty, and in none did hæmorrhage appear, although in former labors the greatest danger to life had been experienced.

"He alluded to the power possessed by the ergot of restraining after-pains, and mentioned some cases in which he had given the medicine with this view, and with the best effect.

"He concluded by bearing strong testimony to the value of this medicine in cases of very obstinate menorrhagia when given in doses of five grains three times a day; and he mentioned having witnessed on some occasions, when the medicine had been thus given, the production of severe cramp-like pains in the hips, and upper part of the thighs,"—*Dublin Hospital Gazette.*

RECURRENCE OF MENSTRUATION AT AN ADVANCED AGE.

MM. Murynck and Klutsens relate two cases in which menstruation recurred several years after it had ceased, and continued to a very advanced age. The subjects of both cases were nuns. In one, menstruation had ceased at the age of fifty-two, recurred at the age of sixty-two, and continued when the case was recorded, at the age seventy-three, with perfect regularity. What is curious, the patient was attacked on the cessation of her menstrual discharge with gastralgia, which persisted in spite of various remedies, until the recurrence of the discharge, when it left her and her health became perfect. In the second case, the menstrual discharge ceased at the age of fifty-two also; it recurred at the age of sixty, and had continued up to the date of the report, when the patient was ninety years of age. This patient was attacked on the cessation of the menstruation with violent colics, followed by tic douloureux, which resisted all treatment, but ceased on the recurrence of the menstrual discharge, and the patient at the age of ninety, was in the enjoyment of health with all her faculties perfect, and with the tastes and ideas belonging to youth."—*Dublin Hospital Gazette.*

THE SHAPE OF THE EXTERNAL EAR IN RELATION TO MENTAL DISEASE.

Dr. Conolly, in one of his admirable letters on French lunatic asylums, makes the following remarks:

"M. Foville has made curious, and, I believe original observations on the shape of the ear in different forms of insanity, and has noticed an analogy or resemblance between

the development of different portions of this organ and the brain of the patient. Of these views he was so obliging as to give me some explanation, illustrated by an extemporaneous diagram, and afterwards by corroborative examples. In some of the cases of dementia, or of the lowest degree of intelligence, the flatness and defective form of the helix, anti-helix, and tragus and the disproportionate enlargement and pendulosity of the lobe of the ear, and rounded clumsy shape of the outer edge of the auricle, were very striking. Subsequent observations have led me to believe these views to be exact as well as curious; and they exemplify the abundance of external evidence available to the physician in relation to internal disorder."

In support of the view here proposed, he relates the following anecdote:

"Not very long ago, M. Foville was called upon by an intelligent and philanthropic person who appeared to take much interest in the management of lunatic asylums; and he was greatly struck with a conformation of ears in this gentleman which he had never previously observed, except in cases of mental irregularity or disorder. I happen myself to know that the individual who was the subject of this observation has had several attacks of insanity, and although now at large, and exhibiting considerable mental activity, has repeatedly been in confinement; circumstances of which M. Foville had no knowledge when he remarked what seemed to him to be an anomalous peculiarity."—*British and Foreign Review.*

THE AGE AT WHICH INSANITY IS MOST PREVALENT.

"To determine the period of life which furnishes the greatest number of insane persons it is sufficient to bring together the records made up under different circumstances. One of them, made at the Bicetre, where poor poor men only are received; another, at the Salpetiere, an hospital destined for poor women; the third, at an establishment devoted to the wealthy. From these reports we may conclude:—1st, that the age which furnishes the greatest number of insane, is, for men, that from thirty to forty years; whilst for women, it is that from fifty to sixty years; 2nd, that the ages which furnish the least, are, for both sexes, childhood, youth, and advanced age; 3rd, that among women, insanity appears earlier than among men—indeed, from twenty-nine to thirty years of age; 4th, that the rich are afflicted, in comparison with the total number of insane persons, in a greater proportion than the poor."

THE SYMPTOMS AND DIAGNOSIS OF ANEURISMS OF BONES.

Symptoms.—Sometimes the pain and uneasiness of this disease is long in establishing itself, but for the most part it comes on suddenly, with a sense of cracking near the joint. After continuing two or three months, a tumor is perceived. This is at first very small, and may escape notice; but after a while becomes prominent, the skin over it then becomes violet colored, and transparent, so as to exhibit the numerous sub-cutaneous veins. On examining the tumor we find it connected with the bone, and presenting different degrees of consistency at various points. Frequently, on pressing the more resisting portions, we are sensible of a sensation which has been compared to the crackling of parchment, or the breaking of an egg-shell, a sign dependent upon the depression and re-elevation of the thin osseous shell of the bone. One of the most characteristic symptoms consists in well-marked pulsations synchronous with those of the heart, and which are suspended when the principal vessel leading to the part is compressed. There is no *bruit de soufflet.* The disease has always been observed in young persons or adults, and has, in different cases, been attributed to various acts of external violence, although, doubtless, the changes in the bone had already commenced. The progress of the disease is generally slow. There is no authentic example in which rupture has occurred, for the ulcerations and hæmorrhages spoken of by some authors probably arose from pulsating cancerous degenerations.

Diagnosis.—An aneurism of a bone may be confounded with one of the soft parts, the symptoms of the two being so very similar; and before post mortem examinations had explained the true nature of these cases, the mistake was inevitable. In the cases treated by Pearson, Scrapa, and Lallemand, the disease was supposed to be an aneurism of the articular arteries of the knee, or of the anterior tibial. The osseous aneurism forms one body, as it were, with the subjacent bone, a thin shell of which imparts a sense of crepitation; when the tumor is reduced by slow pressure, we perceive the loss of substance in the bone.—The aneurisms unconnected with the bone are more mobile, and impart the *bruit de soufflet* to the ear. A malignant pulsating tumor is distinguished with greater difficulty. The chief points are, that it cannot be partially reduced by pressure to the same extent as an aneurism, while it usually gives the *bruit de soufflet* in auscultation."—*Medico-Chirurgical Review.*

REMARKABLE CASE OF

ABSCESS OF THE HEART.

Pain in the Leg the only Symptom of disease during Life.

BY T. HOWITT, ESQ., SURGEON.

Observing in the Lancet* the history of a "rare case of abscess of the heart," by Mr. Chance, I am induced to send the particulars of the subjoined case. I have transcribed it just as it was entered in my note-book at the period it occurred. I still possess the morbid specimen; and as it appears from Professor Owen's statement to Mr. Chance, that there is not one similar in the museum of the College of Surgeons, I purpose to deposit it there.

On November 18th, 1833, at eight P. M., I was requested by my lamented friend, Mr. John Merriman (then house surgeon to the Lancaster Infirmary) to visit Samuel P——, eight years of age. I found him suffering from most acute pain, which he described as deeply situated towards the centre of the calf of the right leg, having commenced suddenly about twelve hours previously. So far as we could learn, it had not been produced by any external agent, he having had neither blow nor fall. Upon a careful examination of the part, we could detect neither swelling nor redness, nor any symptom indicative of inflammation, neither was there any spasmodic action of the muscles to account for it. Occasionally the pain remitted in severity. When he complained of violent throbbing, our examination did not appear to cause any increased pain; his bowels had been relieved by a dose of castor oil exhibited by Mr. Merriman this morning; no headache, no pain in the chest or abdomen, no thirst, pulse 110;—in fact, this pain in the leg was the only complaint the boy had to make.

Supposing, from the history, that matter might be about to form under the periosteum, we directed six leeches to be applied over the seat of the pain, and small doses of calomel and opium every four hours.

19th.—Nine A. M. No relief; the pain as acute as yesterday, yet no swelling or redness, except around the leech bites, which had bled pretty freely. Having during the night voided two large lumbrici, he was ordered a turpentine injection, and the calomel and opium to be continued; pulse 120.

20th.—Nine A. M.: The pain in the leg still continues; his general condition is much the same, but he appears a little dull and stupid, not answering questions very readily, though quite correctly; pulse 130, more feeble. The mouth not being at all affected by the calomel, we imagined the dulness he evinced to be the effect of the opium, and mercury with chalk, combined with rhubarb was substituted for the calomel and opium. The bowels had been twice relieved by the turpentine enema, and three more lumbrici voided.

21st.—Nine A. M.: No mitigation of the pain in the leg, nor any further evidence as to its cause; the limb preserves its natural heat and size. I directed it to be well rubbed with hot turpentine, and then enveloped in a warm poultice. In other respects, little variation from yesterday. Pulse 130, feeble.—Eight P. M.: Decided symptoms of coma now making their appearance. Pulse 140; pupils contracted; the patient lying upon his back, constantly moaning; with difficulty roused, but when roused, quite sensible, and still complaining of his leg.—Ordered a small blister to the nape, and a teaspoonful of wine to be given occasionally. Bowels relieved by an enema.

22nd.—Nine A. M.: Rallied a little; less stupor; perfectly sensible, and answered questions more readily; blister discharging; pulse 130. No cessation of the pain in the leg. Wine to be continued.—Eight P. M.: Much the same, but in addition he complains of pain in the bowels, which have been relieved, and are soft upon pressure.

23rd.—Nine A. M.: Considerably more stupor; when roused he answered a question correctly, but instantly relapsed. From this time he gradually sank, becoming quite insensible to all stimulants; tongue and mouth dry; lips, gums, and teeth, covered with sordes; he lay upon his back, constantly uttering a low moan; his legs and arms occasionally convulsed until the evening of the 24th, when, death closed the scene.

The case being one which had interested me a good deal, and being anxious to make out, if possible, the origin of the severe pain which, throughout, had been the only symptom of any disease whatever, until the supervention of coma, with some difficulty I prevailed upon the parents to allow an inspection.

Post-mortem, sixteen hours after death.—Our attention was first directed to the seat of the pain—the calf of the right leg, where we could discover nothing abnormal, there not being the slightest alteration in any of the tissues, nor any indication of inflammation in the bone, periosteum, nerves, vessels, or muscles. Abdomen: the intestines free from any trace of disease; kidneys and bladder healthy; but all the mesenteric

* August No., p. 153.

glands considerably enlarged, some of the largest, when cut into, containing a cheesy matter; the mesenteric vessels gorged with dark venous blood; pancreas indurated; liver and spleen healthy. Upon opening the chest, the pericardium instantly attracted our attention as appearing very much distended; and, on cutting into it, there gushed out, as near as we could guess, a pint of grumous fluid and pus, containing a number of curdy flakes, the whole interior surface being lined with a layer of cheesy, scrofulous-looking matter, apparently soft, coagulated lymph, one-sixteenth of an inch in thickness. The pericardium investing the heart was covered with the same matter, and to the same degree of thickness. On examining the external surface of the heart more particularly, we discovered a rounded eminence, situated just at the junction of the right auricle with the right ventricle, and which was darker in color than any other portion. Upon making a crucial incision into this prominence, there flowed out about a tea-spoonful of ill-conditioned pus, with a few curdy flakes. This small abscess communicated, internally, by a small, ragged opening, with the right auricle, which contained a mixture of pus and blood; there was no communication with the sac of the pericardium; the lungs were perfectly sound. Head not examined.

The above case has frequently been named by me to many of my professional brethren, as a most anomalous one; yet in many respects it bears a striking similarity to the one detailed by Mr. Chance. The publication of such cases, although, perhaps, leading to no very useful practical result, (in the present state of our knowedge,) demonstrate to us what very formidable disease may be progressing in a vital organ, even to the rapid destruction of the life of an individual, without the manifestation of any symptom likely to lead to the detection of so fatal and insidious an enemy—a fact I have several times seen exemplified in disease of the brain. Are we in the present case to consider the pain in the leg as sympathetic of the diseased heart?—*Lancet.*

REMARKABLE MESMERIC CURE.

At a lecture given at Derby, on Wednesday week, Mr. S. T. Hall related the following remarkable case:—It is that of a young lady of whose mind and disposition, to say the best I could, would be no compliment; but whose bodily powers were so worn down by a grievous internal disease and a natural delicacy of constitution, that some years ago, she was unable properly to balance herself when walking, and so fell from the top to the bottom of a flight of stairs, severely bruising the back of her head, and various portions of her spine, step after step, during the entire descent. From the description I have heard, the paroxysms and tortures to which she became subject, must have been most awful. Notwithstanding her previous debility, so powerful were the convulsions she afterwards for some time underwent, that it often required the efforts of two or three strong men to prevent her being thrown by them off the bed. To the relief of these, nature came at length with an attack of paralysis, which entirely prostrated her, and for nearly three years she lay unable to help herself, as it was even with difficulty she could be helped by others, since the slightest application of a camel hair pencil to the region of the spine, was sufficient to occasion the most excrutiating pain. The best advice that could be obtained, afar or near—every remedy that medical authority could suggest to her kind and anxious friends —had been tried, and had left her little better than it found her; and when I was first introduced, she was not only suffering from exceedingly acute pain, but appeared to be as weakly and as inert as an infant. The results of my visits have since been attributed by some of our opponents, to the effect of a powerful imagination. But as ever since the cessation of her convulsions, one of the young lady's legs had become permanently foreshorted, so that when she was made able to stand, she could not bring the heel within two inches of the ground; and as this physical, and not imaginary contraction, has now been entirely removed—further, as a constant and anxious medical friend of the family had such faith in the patient's integrity and sound judgment, that he had declared long before, if mesmerism could produce any effect upon her, he should fully believe her report of it—such an interpretation is as preposterous and pitiful as the spirit that dictates it. Whatever the agent between my passes and her frame, or whatever name it may be called by—and 'the rose by any other name would smell as sweet'—this truth is clear to all who know her, and though her sufferings had been all and more than I have described, up to the commencement of my present series of visits to Derby, and though my treatment has been without the aid of drugs of any kind, she is not only now comparatively free from pain, but goes freely about the house, enjoying the society of her delighted friends, and occasionally walks, unsupported, in the garden, gathering flowers with her own hands, and

thankfully reaping additional health from such a renewal of her acquaintance with nature." We believe, says the Derby Reporter, that we are perfectly in order, in saying that the patient thus far restored, is Miss Longdon, of Friar gate, well known in Derby as a kind and intelligent member of the Society of Friends, whose parents, and others of the family connexion, were present at the lecture, and concurred in all that was advanced in relation to the case by Mr. Hall. —*Bath Herald, England.*

The Treatment of Chronic Enlargement of the Bursa Patellæ.

Dr. Adams submitted to a recent meeting of the Dublin Pathological Society (Dublin Hospital Gazette) several casts and specimens illustrating the pathology and treatment of this troublesome affection. Much condensed, his observations are to the following effect:—

"E. B——, aged twenty-two, was admitted into Richmond Hospital, under the care of Dr. Adams, having a chronic enlargement of the bursa over the right patellæ, from which she experienced so much inconvenience, that she was anxious to be relieved of it by any means thought advisable. The tumour was about the size of a hen's egg; the skin covering it had a natural appearance; fluctuation was evident, and small foreign bodies could be distinguished in the fluid.

On the second day after her admission, Dr. Adams opened the tumour by a free longitudinal incision, extending from above downward, throughout the whole extent of the enlarged bursa. A fluid of an oily appearance escaped, carrying with it numerous small pipin-shaped bodies of a whitish color. The interior of the cyst was examined, and some few small bodies were found adherent by slender pedicles to the interior of the cyst; these were detached from the lining membrane of the bursa and removed: an oiled dossil of lint being introduced; light compresses and bandage were applied. On the eighth day suppuration was established and a poultice applied. No inflammation nor constitutional disturbance whatever were excited. Granulations were thrown out from the bottom, and the cyst gradually became obliterated. On the twentieth day the granulations were so much raised to the level of the skin as to need the application of nitrate of silver. She was discharged on the twenty-fifth day from that of the incision having been made, and for the last ten days she has been walking about without feeling any inconvenience.

Excision of the bursa, which is situated over the patella, when in a state of chronic enlargement, has been recommended as the best mode of proceeding. Dr. Adams has known this to have been done; and although he admitted that there might be some cases in which such an operation may be judicious, still he believed that such cases should form the exception, and that, as a general rule, the operation by a free incision was preferable. He has observed the dissection to be a very painful proceeding, and in very large tumours, if not conducted with caution, the knee-joint might be endangered. For example, put a case in which the enlarged bursa measured in its circumference thirteen inches, projecting from the patella seven inches, and consequently completely covering it above, below, and laterally. Dr. Adams remarked, that while a free incision from above downwards could be made in a few seconds, with but little pain to the patient, and without any immediate danger of injuring any of the subjacent parts, excision of such a tumour would be a most severe operation, and it is quite possible that the synovial membrane of the knee-joint might be opened; whereas the incision is quickly and easily done, is infinitely less painful, and in those cases Dr. Adams had lately under his care, quite satisfactory—the deformity which might be supposed to remain after the operation of the incision, from the thickened cyst which remains, being found by experience to be really nothing. He prefers the operation of free longitudinal incisions to punctures, injection or seton; because although these last means may excite sufficient inflammation, so as to produce a radical cure, they are by no means so certain; and he thinks that any operation which leaves foreign bodies behind, is likely to fail in radically curing the disease, because when these foreign bodies are pressed upon while the patient is kneeling, new irritation and inflammation arise, with a consequent recurrence of the disease.

Another great advantage is this, that there is no constitutional disturbance following the operation. There is less novelty in the practice here recommended, than justice in the argument by which its propriety is urged.

Calculi of the Prostate Gland.

A discussion which occurred recently at the "Societe de Chirurgie," on prostatic calculi, and which is reported by the Gazette des Hopitaux, elicited the following remarks on the subject:—

M. Lenoir stated that a patient, fifty-five years of age, had been addressed to him by a provincial surgeon, under the impression that he was laboring under vesical calculus. On introducing the sound, he found an obstacle which gave a clear sound, and which he thought was a vesical calculus, but on examining digitally by the rectum, he failed to recognise its presence. On exercising pressure, however, on the prostate, he caused the escape of about fifteen small calculi. They were of a dark yellow color, and presented facet surfaces; burnt, they gave a decided animal odour. The patient, who, when he entered the hospital, had all the symptoms of serious vesical catarrh, left nearly well. A few months later he was again sent to Paris, under the idea that he was laboring from vesical calculus, and a number of small stones were again emitted, by pressure of the prostate. Vesical catarrh was present as on the first occasion. M. Lenoir thought that the calculi were formed in the ejaculatory ducts, and that it was because they occupied the orifice, that these produced, when touched with the sound, the sensation of a stone in the bladder.

M. Nelaton had met with a case at the Hotel Dieu, similar to the one of M. Lenoir. The friction of the sound over a hard substance in the region of the prostate had led him to recognise the presence of prostatic calculi. He managed to withdraw several by means of lithotritic instruments, and the patient left apparently cured. Two months afterwards he returned with the same symptoms, indicating prostatic calculi, and, in addition, with a vesical calculus. He was not able to lay hold of the latter, in order to crush it, and was obliged to perform the operation of lithotomy. On scratching the surface of the incised prostate with his nail, he managed to make several calculi fall, similar to those described by M. Lenoir. The patient was cured. M. Michon, M. Guersant, and M. Laugier, thought that prostatic calculi were not rare; M. Malgaigne was of a contrary opinion.

Case of Ulcer, Accompanied with Varicose Veins of the Leg,

Treated with Cajeput Oil.

John C———, aged 32, admitted an in-patient, under the care of Mr. Hancock, 5th March, 1845, with ulcer on the right leg. States that he has had a sore on the right tibia since 1831; he had it first in Jamaica, where he was in the habit of drinking largely of rum. He has had varicose veins of the leg for three years. When admitted the ulcer was two inches long by one inch wide, and the surface of the sore without any appearance of granulation; above the wound was a considerable swelling, caused by enlarged varicose veins. He suffered so much pain that he could not put his heel to the ground. Ordered, cajeput oil, twenty-four minims; syrup, two drachms; distilled water, eight ounces, Mix. An ounce three times a day. Sore to be dressed with water-dressing, and patient to remain in bed.

March 9th.—Swelling has disappeared; sore granulating veins much diminished in size: quite free from pain; passes more urine than usual. Says, that although he has frequently rested the limb before, he never observed such a diminution in the size of the vessels.

20th.—Has gone on improving up to this date; the ulcer is now very nearly healed. The veins have resumed the natural size, and the swelling above the ulcer, caused by the collection of varicose veins, has entirely subsided.

Discharged cured.

ON THE

Use of the Starch Bandage in various Surgical Diseases.

BY A. MARKWICK, ESQ., M. R. C. S., LONDON.

In a paper lately published in THE LANCET, I called the attention of its readers to the use of the starch bandage in the treatment of fractures, and attempted to prove that its advantages were due to the great solidity and support it gave to the fractured limb; to its preventing the displacement of the bones; to the facility with which it can be split open, for the purpose of examining the state of the injured member, and applying such remedies as the case may require; and though last, not least in importance—to its enabling the patient to leave his bed, and move about from place to place, and attend to his accustomed avocations, without either risk or danger, in the majority of cases: his strength being by this means kept up, while those cachectic and debilitated states of the constitution consequent on a prolonged decubitus are prevented.

In the present communication, I propose adverting to its application in those cases in which, as in fractures, the chief indication is to keep the part motionless. These are—dislocations, sprains, and other injuries of the joints; diseases of these parts; ruptures of the muscles and their tendons; re-sections

of bones; necrosis and caries; certain deformities, either congenital, or acquired, or from vicious cicatrization; aneurisms; varicose veins; hernia; indurated testicle, &c. I shall consider each of these in the order in which they are here given.

It is not my intention to enter into a full description of every species of luxation: I shall continue my remarks to the subject of treatment, and more particularly to that portion of it which more directly concerns us in this paper.

There are some dislocations in which it is almost impossible to prevent a repetition of the displacement by the ordinary means—as, for instance, in the dislocation, forwards, of the sternal end of the clavicle Now with the starch bandage we can effectually overcome this difficulty.

The indications in this accident are, to keep the shoulder outwards and forwards, and the sternal end of the clavicle in its proper situation. The best apparatus for fulfilling these indications is a starch bandage, consisting of a combination of a portion of Dessault's bandage for fractured clavicle and the anterior figure-of-8-bandage. The former, which should only be sufficiently starched to prevent it from getting slack, will keep the shoulder outwards by means of the axillary pad, while the latter will bring it forwards and keep the sternal end of the bone in its place by its firmness and solidity—properties that are due to the starch with which it should be abundantly covered, especially over the sterno-clavicular articulation. Should more firmness be required to effect this object, a piece of paste-board or stiff leather, previously soaked in warm water, and starched, may be applied, and secured by a second figure-of-8 bandage. The arm is then to be supported in a sling. As the axillary pad, by pressing on the vessels of the arm, has a tendency to produce œdema, it is always advisable to commence by passing a roller round the limb, from the fingers upwards.

This example will, I think, sufficiently show the importance of the starch bandage in the treatment of luxations. I may, however, state that it does not, as in fractures, constitute a distinct apparatus; on the contrary, the contentive means and mode of treatment, in each particular case, remain the same, the only difference being in the starch with which the bandage is covered, for the purpose of increasing its solidity and strength, and preventing it from becoming loose.

Sprains and other injuries of the joints constitute the next class of cases. When called to a case of sprain immediately after it has happened, the first thing to be done is to elevate the limb, and place it in the most easy and comfortable position for the patient, and then to adopt such measures as are calculated to prevent, if possible, the occurrence, or, at all events, to check the violence of the inflammatory action. The immediate application of cold, and persevered in for a sufficient length of time, seems to be the most effectual means of preventing the afflux of the fluids towards the part upon which the inflammation depends. When the inflammatory period has passed, no time should be lost in placing the joint in a starch bandage, which is to be applied in the manner directed in the first paper, with or without the pasteboard splints, as the case may be. This apparatus, by accurately moulding itself on all the inequalities of the articulation, forms for it a continuous, permanent, and immovable splint, which not only keeps it perfectly free from all motion, but likewise gives it that support by which the patient is enabled to get about much sooner, and with far greater safety, than he, by possibility, can do when a *moveable apparatus* is employed. If, instead of being sent for immediately after the accident, as I have supposed to be the case in the foregoing paragraph, we do not see the patient until some time afterwards, when there is considerable tumefaction and ecchymosis, the same precautions are necessary with respect to the perfect quietude of the joint; but the employment of cold, which was so beneficial in the preceding instance, is here more injurious than useful. Recourse should, in these cases, immediately be had to either general or local blood-letting, or both to the extent required by the severity of the injury, and the size of the joint affected, followed by warm, emollient, sedative fomentations, and poultices, and then, when the inflammation has been subdued by these means, the application of the starch bandage should be forthwith proceeded with. If the case has become chronic, and there is effusion of serum into the synovial membrane, together with considerable stiffness and weakness of the articulation, then the remedies recommended as applicable to the preceding stages must be replaced by others of a stimulating character, such as friction with camphorated and ammoniated liniments, blisters, &c., with a view to promote the absorption of the effused fluid, and the joint placed as quickly as possible in a starched bandage, which will, in the majority of cases, be found the most powerful and effectual resolutive means. In this stage, the ligaments are considerably relaxed and weakened, and, in order to regain their strength and firmness, require

to be kept perfectly quiet and well supported. Nothing can be better suited for this purpose than the starch bandage, from the uniform pressure it produces, and the solidity and immobility it possesses.

Pulpy thickening of the synovial membrane.—From the nature of this affection it is evident that perfect rest must constitute the only means upon which we can at all calculate for producing any benefit. Mr. Scott employs for this purpose strips of plaster, but they are not sufficiently efficacious, and, moreover, are not free from disadvantages. One of these, is their great tendency to produce excoriation, and hence to necessitate their frequent removal; and another, if possible, still greater is, that when abscesses are present, they prevent the free escape of the matter, and become filthy and offensive in consequence. The starch bandage is an admirable remedy in these cases, as it can be so applied as both to produce the effect desired, and to allow a free discharge of all purulent matter, and, at the same time to check its further accumulation.

Ulceration of the cartilages.—As ulceration cannot be put a stop to, but on the contrary is aggravated by friction, it is clear that the only means by which we can arrest or check its progress is to keep the joint in a most perfect state of immobility. This constitutes the most important part of the treatment, and must not be neglected. By adopting this course, we sometimes succeed in entirely curing the disease, provided we are called upon to treat it at a sufficiently early period. But if our advice has not been sought until the process of destruction has farther advanced, and caries has, in all probability, commenced in the heads of the bones, then we have but little if any chance of effecting a perfect cure; and we must endeavor, by every possible means, to stop the further progress of the disease, so as to bring about ankylosis. The starch bandage is the best apparatus that I know of for restoring the joint in the first stage, and for arresting the ulceration, and securing the termination by ankylosis in the second. It may be applied either entirely round the joint, or openings may be left in it, for the purpose of applying such remedies as the nature of the case may require, or for the escape of the matter from the various sinuses. Nothing can be more congenial to the patient, or more likely to produce beneficial results, than the moderate but equal pressure which this bandage produces on all parts of the joint. "It will," as Sir B. Brodie says, when speaking of pressure in scrofulous diseases of the joints, "promote the healing of the sinuses, and by more completely preventing the motion of the joint, will lessen the chance of fresh suppuration, and favor the union of the ulcerated bony surfaces."

*White Swelling.**—This disease has its origin in the concellated structure of the bones, consequently is generally met with in those situations in which this tissue is the most abundant—viz., in the knee and elbow joints, and in the small bones composing the tarsus and corpus. The tarsus and the knee are the most frequently affected.

The treatment in this affection is much the same as that required by the last-mentioned disease, the indications at the commencement being, to arrest the progress of the ulceration and prevent the other structures from becoming affected; and, at a more advanced period, when these have become diseased, and abscesses have formed, to endeavor to save the limb by promoting ankylosis. Absolute repose, therefore, of the affected joint is of the utmost necessity, as the slightest motion irritates the diseased bones, accelerates the ulceration in them, and hastens its extension to the adjoining parts.—The starch bandage will prove an invaluable apparatus to the surgeon in these cases. It readily admits of the application of external remedies, such as issues, blisters, or other counter-irritants, and also of the free exit of the discharge produced by these, or resulting from the abscesses that may have formed; while at the same time it gives to the joint the necessary support, and prevents all motion between the articulating surfaces of the bones. In cases where large abscesses have formed, it will be found of great service, by the uniform pressure which it produces, in dispersing the purulent matter which they contain, and in suppressing its further secretion, and by this means bringing the parts into the condition necessary for the production of ankylosis.

For the therapeutic treatment of the diseases of the joints, I must refer to the various surgical works, and especially to Sir B. Brodie's elaborate treatise, in which it is fully described.

Rupture of the muscles and tendons.—As the perfect restoration of the use of the limb will depend on the close approximation of the lacerated parts, it follows that in the treatment of these injuries, the member must

* White-swelling is a term that has been applied by various authors to very different diseases, such as inflammation of the synoval membrane, pulpy thickening of the same, ulceration of the cartilages, and caries of the heads of bones. It is, however, to the last that it is the most applicable, from the circumstance that the color of the skin remains the same.

be placed in such a position as will perfectly relax the ruptured muscle or tendon, and bring its several extemities in close apposition, and a suitable apparatus must be employed to maintain them in this condition. The starch bandage will be found the most efficacious one for this purpose. It retains the limb in the requisite state for the perfect coaptation of the ruptured surfaces, and prevents the contraction of the muscles, upon which a separation frequently depends.

Let us take, by way of illustrating its advantages, one of the most serious of this class of accidents—viz., a case of rupture of the tendon of the rectus femoris muscle. In this, there is generally considerable subsequent weakness and lameness of the limb, owing to the inability of the ordinary remedies to keep the parts in a necessary state of extension. Now if a starch bandage be employed, it will overcome every difficulty, and fulfil every indication. During its application, the limb must be completely extended, and the coaptation made, by depressing the upper portion of the muscle, and raising the patella by means of graduated compresses. The starch bandage will also be found of great service in cases of spasmodic affections of the muscles, as in chorea, &c.

Re-section of the heads of bones.—This operation is had recourse to when we wish to remove the disease in them without sacrificing the limb. It must therefore be performed before the surrounding soft structures become implicated, and before the patient's health is seriously affected. After the operation, when the wound has nearly or quite healed, the joint requires to be confined in a certain position, and kept perfectly quiet for some time, during the formation of the fibrous tissue, by which the bones eventually become united The starch bandage in these cases is a very useful apparatus.

In caries and necrosis of the bones also, and in the inflammation which precedes them the firm and equable pressure which this bandage produces will be of great service in checking the accumulation of matter, and in securing the perfect repose of the limb, by which means a considerable degree of irritation will be prevented.

Congenital Deformities.—The first of these that I shall mention is spina bifida.—The treatment consists in evacuating the fluid of the spinal tumor, then replacing and maintaining the protruded membranes within the vertebral cavity. The advantage of pressure and puncture in these cases was fully exemplified by the success the late Sir Astley Cooper obtained from it in two instances.*

Alhough I have not had an opportunity of witnessing the effects of the starch bandage in the affection under consideration, I can but think, that if properly applied, and care is taken to protect the integuments, covering the tumor with some soft material, in order to prevent inflammation and excoriation, it would prove an exceedingly useful and effectual apparatus. It certainly recommends itself for trial.

Another frequently congenital deformity is club-foot, of which there are three varieties. In these cases, the object in the treatment is to overcome the inordinate contraction of the muscles, by which the different varieties are produced. This can be effected in many instances, when the child is not too old, by apparatus, which both restrain the further action of the muscles, and tend forcibly to bring the foot into its normal position. In some cases it is necessary previously to divide the tendons. Most of the mechanical contrivances that are employed for this purpose are costly, and consequently beyond the reach of the poorer classes.—In the starch bandage we have a cheap and convenient remedy, one equally efficacious, and therefore equally, if not more valuable.

There are certain other non-congenital deformities, produced either by the permanent contraction of the muscles or by the shortening and rigidity of the fascæ, or by the gradual contraction of the cicatrices, resulting from burns or extensive ulceration, for which the starch bandage will be equally applicable, after an operation has been performed, for the purpose of overcoming either the contraction of muscles or of the cicatrices, or counteracting the gradual shortening of the faciæ. To this class belong contracted fingers and various kinds of spurious alkylosis, as of the knee and elbow joints.

The deformities arising from burns are frequently very considerable, and often perfectly irremediable. Thus the bones have been known to be dislocated, the joints firmly flexed or bent backwards, the head drawn on one side, the chin united to the integuments covering the sternum, and the thigh to the abdomen. It is always advisable to prevent these sad results as much as possible, by the application of bandages during the process of cicatrization, so as to keep up a constant extension in the opposite direction to that in which the deformity is about

* For a detailed account of these cases, see the second volume of the "Medico-Chirurgical Transactions," and Cooper's "Dictionary," article, spina bifida.

to be produced. I know of no apparatus that will be found so effectually to attain its object, and with so little inconvenience to the patient or the practioner, as the bandage under consideration. It may be applied over the ordinary dressings.

In aneurisms and varicose veins it is extremely useful. In the former, its even, but firm pressure, equalizes the circulation through the limb, and by lessening the impetus with which the blood is sent into the aneurismal sac, prevents its dilatation, and promotes the coagulation of its contents, and its subsequent obliteration. In the latter, the support it gives to the limb prevents any undue accumulation of blood in it, and enables the dilated and distended veins to contract on their contents, and propel the blood onwards towards the heart, while its firm and unyielding nature effectually secures them from all external injury.

In umbilical and ventral hernia there is no more certain means of preventing the protrusion of the bowel than the starch bandage. It is applied in the following manner:—The little patient being suspended in the air, in the horizontal position, by two assistants, the surgeon proceeds to return the intestine into the cavity of the abdomen, and having done so, places over the hernial aperture the apex of a graduated compress, upon which firm pressure is made by an assistant. He then takes up a fold of the integuments on each side of the graduated pad, while another assistant passes round the body a linen band, six or seven inches wide. The whole then is firmly secured by a well-starched roller.

The application of this bandage may be extended to other herniæ, both in children and in adults.

In indurated testicle its advantages are very apparent. It produces much more firm and equal pressure than any strapping can do, and does not cause that painful excoriation of the skin which this does invariably.

I might mention several other cases in which it would be beneficial; but I have already given sufficient examples to show its value and importance.—*Lancet.*

PRACTICAL REMARKS

On some points of Trichopathy and the Chemical Pathology of the Human Hair.

By Thomas Cattell, Esq., M. D., M. R. C, S. E., &c., Braunston.

No reply having yet been furnished to the wish of a subscriber expressed in the Lancet of March 28th last, as to the ingredients used, and the practices adopted, in dyeing the hair," I am induced to enter upon some consideration of the subject.

In this are necessarily involved, tricho-dyschroia, decoloration; tricho-crosology, coloration; and the general pathology of the hair. The only other trichopathical affections to which I shall here refer are, allopecia, canities, and calvities, or balduess, hoariness, and fall of the hair.

Tricho-dyschroia is a pathological condition of the hair,, which may arise from constitutional changes induced by inadequate diet, or disease, the influence of emotions or passions, hereditary influences, &c. There is, however, no cause so manifest as that of chemical reagency in decolorizing the hair; for example, if the hair of a person be for some time exposed to gaseous chlorine, its natural color disappears, and there is perceived the presence of a bitter adhesive compound That systematic changes, ushered in by the constant use of a diet, deficient in the elements of the hair may alone, or associated with physical affection, stand as the proximate cause or tricho-dyschroia, is a point, to say the least, which theory justifies us in supposing. In corroboration of the supposition, that tricho-dyschroia is often induced by the direct and powerful influence of emotions and passions, there are not wanting the record of many striking coincidences.

It is, I beleive, generally admitted, that old age is an essentially proximate cause of tricho-dyschroia and canities. But to establish the hypothesis, it is necessary to prove that such is uniformly the case. To suppose otherwise, is to suppose this essentiality no essentiality, which is a contradiction. We cannot speak of the cause of a physical change as essentially proximate, unless we admit the uniformity of this cause. To affirm, therefore, that old age is the proximate cause of either tricho-dyschroia or canities, is to affirm what is directly contravened by the evidence of numerous facts; still, it is perplexing to offer a solution of the absolute cause of that change which so often occurs in the extremes of apparent juvenility and real decrepitude. We are, however, confident that the effect is the same, whether it occur in the ascension, meridian, or declination of life, as the chemical pathology of each will give us no room to doubt. It is scarcely necessary to observe, that hereditary influence greatly modifies the color of the hair.

With this slight reference to the causes which operate in producing changes, varieties of color, and conditions of the hair, it is here incumbent that we should inquire

what, in a chemical view of the case, constitutes the nature of such changes, varieties, and conditions.

Vauquelin asserts, that the varieties in the color of the hair depend on the presence of a colored fatty matter; but such notion appears to be controverted by the fact, that black hair chiefly recognises for its color the existence of iron in a state of sulphuret. If this colored fatty matter be the proximate cause of all the varieties in the color of the hair, then it is evident that of what color soever this fatty matter is, so must be the color of the hair. Besides, the supposition is opposed to too much factorial evidence. For example, if we take hair, exhibiting the different varieties of black, auburn, red, or brown, and by chemical reagents deprive it of its sulphur or iron, we deprive it of these colors or varieties. How could this be, if the color in all its varieties depended entirely on the presence of the fatty matter. Again, if we apply to the hair stains of lead or silver, or silver with iron, we immediately recognise a change of color. What is the cause of this change? If it be dependent on the fatty matter, then must this fatty matter assimilate the new color, and produce such a change. But such cannot be the case, though we suppose the sulphur which combined with the metalic oxide existed in the fatty matter.

It is, then, I think, the existence of sulphur in the hair, and not the presence of any supposed colored fatty matter, that may be considered the cause of all the varieties of its color. And this probably not on the mere fact of the existence of sulphur in the hair, but from a variation of its quantity in different hair.

Besides, this opinion may receive additional corroboration from evidence negative as well as positive—that is, suppose we deprive the hair by any means of its sulphur, or suppose the sulphur non-existent in the hair, of what color would it be, or of what utility would it be, to apply in any case stains of silver, lead, or silver with iron?

The supposition, that the relative quantity of the sulphur of the hair to the metallic oxide constitutes the proximate cause of all its natural varieties of color, is moreover, warranted by the fundamental principles of chemistry; for if all substances combine in definite proportions, and if the color of the hair be dependent on the presence of a metallic sulphuret, may we not rightly pronounce, that in proportion to its relative quantity and diffusion will be variety or degree of color?

Tricho-crosology is a compound Greek term, which I have devised appositely to express the chemical processes employed in reducing some of the unseemly varieties of color to which the hair is subject, to a supposed standard or standards of natural or ideal beauty. These embrace the formation of paste, pommade, and liquid.

I.—Phumaform hair dye.

1. Oxide of lead, three ounces; carbonate of lime, two ounces; mix into a proper consistence with hot water, and apply it to the hair, enveloped in oil-skin.

2. Carbonate of lead in the place of oxide of lead, and proceed as in the other case. The efficacy of this stain depends on the formation of a plumbite of lime.

II.—Steariform hair dye

Nitrate of silver, a drachm; nitric acid, two drachms; iron filings, two drachms: mix. After the lapse of a few hours, pour the supernatant liquor on two drachms of oatmeal. Lastly, well mix with three ounces of lard.

III.—Chulosiform hair dyes.

1. Silver, two drachms; iron filings, half an ounce; nitric acid, one ounce; water, eight ounces: mix. When the metallic substances are dissolved, pour off the supernatant liquor which constitutes the dye.

2. Nitrate of silver, eleven drachms; nitric acid, a drachm; distilled water, twenty ounces; soap, (*sap. viridis,*) three drachms; gum-arabic, a drachm: well mix.

3. Nitric acid, a drachm; nitrate of silver, ten drachms; soap, (*sap. viridis,*) nine drachms; mucillage, five drachms; water, thirty-seven ounces and a half: mix. This differs from the foregoing only in proportions.

4. Lead filing, two ounces; hartshorn shavings, an ounce; oxide of lead, two drachms; camphor, a drachm; water, a pint. Boil for half-an-hour, and when fine, pour off the supernatant liquor on di-acetate of lead and rosemary leaves, of each one drachm. Again boil, and when sufficiently fine, pour off the supernatant liquor which constitutes the dye.

Of these preparations, as stains for the hair, none claims so decided a preference as the last. It can produce injury to neither the hair, skin, or brain, and possesses the advantage of communicating a beautiful color and curling property to the hair. Whatever objection there may be to the use of dyes containing the nitrate of silver, from their liability to darken the skin, still I regard them preferable to the employment of caustic earths, owing to the depilatory action of the latter.

Before the application of any liquid stain, it is necessary that the hair be freed from all greasy matter. A close brush and a comb are all the requisites in staining the hair.

Connected with the general pathology of the hair, the only two points to which I shall now refer are allopecia and calvities—baldness and the fall of the hair.

Allopecia may arise from any cause destroying the vitality of the bulb of the hair—as, various fevers, the wearing of silk hats, the existence of what, in common parlance, is called worm at the root, neglect in cleansing the head, &c.

Calvities follow precisely analogous causes, and merely differ from allopecia in degree.

To remedy these affections, it would appear, by our daily advertisements, that every advertiser had discovered some secret process—had, in fact, ransacked the whole arcana of science. But leaving these, and the victims that use them, I will mention a general remedy or two which will be found uniformly efficacious, and infinitely more satisfactory in their results than bears'-grease, Macassar oil, or any other advertised preventative or curative:—

1. Rosemary, maiden-hair, southern-wood, myrtle-berries, hazel bark—of each two ounces. Incinerate, and with the incinerated substance make a strong ley, with which to wash the hair at the roots every day, Keep the hair cut short.

2 Carbonate of potash, (perlash,) two drachms; water, a pint: use as the preceding. The efficacy of both these remedial applications depend upon their alkalescent character.

But where a greasy substance is required for the hair, I would suggest the substitution of the elaine of olive oil; though expensive, it will, in many cases, well repay the use, as it never thickens, engenders scurf, or in any way produces detriment to the hair, like common oil or pommade.

The only other greasy matters which I would suggest as substitutes for the elaine are ox-marrow, well agitated in a mortar, and castor-oil, freed from all its adhesive matter.

I trust that, for the future, professional men, and not nostrum-mongers, will take charge of the diseases and affections of the hair.—*Lancet.*

Cases of Varicocele treated by Pressure with Observations.

BY T. B. CURLING, LECTURER ON SURGERY, &C., LONDON HOSPITAL.

The author states that, three years ago, a case of varicocele, cured by the application of pressure to the spermatic veins, came under his notice, and being struck with the peculiar adaptation of this plan of treatment to counteract the injurious effects of the dilated veins, he determined to give it a trial. He has since treated many cases of varicocele by pressure, and as a sufficient period has now elapsed to enable him to form a just opinion of the value of this plan of treatment, and of its advantages over other methods, he ventures to submit the results of his experience in the management of this complaint to the consideration of the fellows of this Society.

The author details three cases of varicocele cured by pressure; the first, at the end of nineteen months; the second at the end of seven months; and the third a case of double varicocele, in ten months. He also alludes to four other cases, in which this plan of treatment was successful in curing the disease. He remarks, that in these cases the dilation of the veins had taken place at a comparatively early period of life, was neither excessive nor of long duration, but was productive of inconvenience and uneasiness, which could be only partially remedied by the suspender; they were precisely the cases in which it was presumed that pressure, by relieving the veins of the superincumbent weight of the blood, would enable their coats to recover their proper size and tone.

Two other cases are related in which great and immediate relief of the distressing symptoms occasionally attendant on varicocele was afforded by pressure, but the patients had not remained under treatment a sufficient period to enable him to judge of the ultimate results.

The author remarks, that little attention is paid to constitutional treatment on varicocele which is commonly regarded as exclusively a local disease. In the class of cases in which the benefit derived from pressure is most apparent, the patients are persons between eighteen and thirty years of age, of weak frame and constitution, and subject to dyspepsia, and whose venous system and circulation are feeble. In these cases the operation of local remedies may be aided materially by general treatment.

After noticing the liability of this disease to relapse, and for this reason recommending the continuance of the truss for some time after all symptoms of the affection are removed, the author adverts to another class of cases, in which the application of pressure is capable of giving considerable relief, though not of curing the disease. They are cases met with at a somewhat advanced period of life, in which the plexus of dilated veins is of large size and of long standing, but productive of only slight inconvenience,

which may be remedied by the suspender. The application of pressure, however not only removes the slight uneasiness but also counteracts the tendency to further dilatation, and prevents the wasting of the testicle, though the enlargement is too great to admit of the vessels being reduced to their former size.

From these observations, the author considers the treatment by pressure to be applicable, either for the cure or relief of the majority of cases of varicocele occurring in practice, and its simplicity, freedom from all risk, and efficacy, in his opinion, render it superior to every other method of treatment that has hitherto been tried. In all the cases which he has treated, he has employed the mocmain-lever truss, which seems better adapted to make the necessary pressure at the abdominal ring than any other instrument that he knows of. In general the truss need be worn only during the day. When the scrotum is pendulous, or the plexus of dilated veins considerable, he advises the addition of the silk-net suspender.

Mr. Lloyd was always able to relieve varicocele without employing a truss. Dilatation of the veins alone in varicocele did not cause pain or inconvenience, any more than a simple varicose condition of the veins of the leg produced suffering. It was when inflammation came on that the pain and inconvenience were experienced. Allay that inflammation, and you relieved your patient.

Mr. Curling in answer to a question, said that he had seen one case in which the use of the truss had been discontinued for four months, and there had been no return of the complaint. In answer to Mr. Lloyd, he observed, that the treatment recommended in the paper had reference only to those cases in which the patient really suffered from the disease. These sufferings might exist independent of inflammation, as the sense of weight &c., experienced by patients in this disease, and the means taken to prevent it, would testify.

Mr. Solly referred to the case of a hard-working smith, who, after wearing a truss for six months had been cured.

Mr. Coulson, though he had not employed a truss in his own practice had known instances in which varicocele had been relieved by such application. When varicocele became troublesome, he was in the habit of drawing the scrotum through Wormald's "scrotal ring," by which means the testicle was drawn up close to the abdominal ring, and this with a suspender, succeeded in affording relief. The apparatus was removed at night.

Mr. Partridge had seen a gentleman who suffered from varicocele complicated with a hernia, which it was difficult to return, and in whom the scrotum was so painful that he could not bear even the pressure of a suspender. The hernia was so difficult to return, that he was ordered to lay in the recumbent position for six months. The hernia was then reduced; he wore a truss, and the varicocele had since much diminished in size.

Mr. Streeter alluded to the remark of Sir C. Bell, to the effect, that he had known varicocele much relieved, when, having been mistaken for hernia, a truss had been applied to it.

ON THE INTERNAL STRUCTURE OF THE HUMAN KIDNEY, AND ALL THE CHANGES WHICH ITS SEVERAL COMPOUND PARTS UNDERGO IN "BRIGHT'S DISEASE." By Joseph Toynbee, Esq., Senior Surgeon to St. George's and St. James General Dispensary.

This paper contains the result of the author's researches into the structure and into the nature of Bright's disease of the kidney, since 1838, during between two and three years he was engaged in pursuing investigations in conjunction with Dr. Bright, but as a variety of circumstances prevented the publication of a work, the result of their joint labors, the author details but the principal facts which have been elicited. Feeling how much is due to the assistance and cooperation of Dr. Bright, at whose expense the greater part of the extended series of drawings elucidating the paper were made, the author states, that it is not without some degree of diffidence that he prefixes his name to the communication.

In the division of the paper on the "Anatomy of the Kidney," the author successively describes minutely the result of the examination into the parenchyma, the tubuli uriniferi, the arteries, veins, and nerves of the organ, in each of which departments views are advanced, varying considerably from those of modern and former anatomists.

In the pathological observations, the author adheres to the opinion advanced by Dr. Bright, and lately so ably advocated by Dr. G. Robinson, that a congested condition of the organ precedes the important changes which subsequently occur in the three stages of disease. The author then proceeds to demonstrate that the arteries first become diseased and that the tubuli veins and parenchyma of the organ follow.

The three stages of the disease are illus-

trated by an elaborate series of drawings in which the various successive changes are indicated, and the paper concludes by pointing to the various plans which should be carried out for the prevention of this disease at present so formidable in all classes of society.

Dr. C. J. B. Williams said that at that late period of the evening, and of the session he would not intrude long on the attention of the Society; but before noticing the subject of the last paper, he could not but express his regret at the *embarras de richesses* with which they had been overwhelmed to-night; almost each one of the interesting papers, of which only either abstracts or the titles had been read, might have afforded a sufficient scope for an evening's digestion and discussion; as it was (no doubt unavoidably), the subjects were scarcely intelligible, and the valuable pathological drawings and specimens were rendered useless.

The last paper treated of a most important subject; and admitting as he did the great value of Mr. Toynbee's researches, he would not lose the opportunity of expressing dissent from the concurrence which Mr. Toynbee expressed with the views of Dr. Johnson, as conveyed in a paper read at the commencement of the session. He (Dr. Williams) not only did not consider that fatty deposit in the kidney to be the first stage of Bright's disease, but he could not admit that it is an essential part of the disease at all. Further he would state as the result of careful microscopic investigation by Dr. Richard Quain, confirmed by his own examination of numerous specimens, that the deposit in this disease is not confined to the uriniferous tubes, but appears on their exterior interstices between the vessels. This corresponds with the views which he had long held and published on the subject, that the deposit consists of albuminous matter like that effused from vessels affected with inflammation or a certain amount of congestion, and may, like such fibrinous effusions, present considerable varieties in its mechanical and chemical condition. This deposit mostly consists of granular matter; but the granules in one case are contained in cells, resembling exudation corpuscles rather than the proper epithelium cells of the uriniferous tubes, and are seen without the tubes as well as within them, and therefore cannot be a multiplication of these cells. The distinction may be further seen on contrasting a healthy kidney with one diseased; but here he begged to observe, that it is a rare thing to find a perfectly healthy kidney in the dead body in this metropolis. A change of structure, the extreme of which constitutes Bright's disease, is in slight degrees exhibited in a large majority of the kidneys of adults examined in hospitals. But if we contrast the healthy kidney of a young subject, we see in its beautiful regular, oval, nucleated epithelial cells, an appearance quite different from the large round granular cells which stuff the tubes, and block up the parenchyma in the early stages of Bright's disease. It is this stuffing and obstructing that interrupts the function of the kidney, and eventually alters its structure. In the more advanced forms of the disease, the granular matter is seen without its cell walls, and sometimes interwoven with filamentous tissue. The facts which he (Dr. Williams) would adduce against the notion, that the deposit is of a fatty nature, are derived from its optical and its chemical properties. Although, occasionally, fat globules in considerable numbers may be seen in it, this is an exception rather than the rule. The granular matter, in most instances, is far less refractive than oil globules are, such for example, as are commonly seen in the cells of the liver, as may be made obvious by comparing them in the same field. The chemical reaction of the matter also differs from that of fat, for the granules resist the action of caustic potash and of æther, separate or combined, whereas, acetic acid partially dissolves them, a fact mentioned in the abstract of Mr. Busk's paper read to-night. He (Dr. Williams) was aware that Mr. Gulliver and others entertained the opinion that the molecular base of all nucleated cells is of a fatty nature, but that was a subject foreign to the present question, which was whether or not the morbid deposit in Bright's disease is chiefly fat, like that in fatty degeneration of the liver. This question he would answer in the negative, and conclude by the additional argument, that it is by no means low in specific gravity.

On the action of Imperceptible Agents on the Living Body

BY PROFESSOR D'AMADOR.

The above is the title of a paper read by the distinguished Professor of Pathology in the University of Montpelier, before the scientific Congrès at Nimes. Professor D'Amador though occupying the Pathological chair in an Allopathic University, is a declared adherent of Homœopathy; and the European reputation which his profound learning and brilliant talents have gained him, render peculiarly interesting any thing proceeding from his pen. Want of space forbids us giving more than a brief analysis

of the memoir whose title we have given above; but a careful perusal of the original, which is to be found in the 2nd vol. of the "Bulletin de la Societé Homœopathique," p. 131, will amply reward all who take an interest in the truly scientific developement of Homœopathy.

The author commences by asserting, that all actions and impressions whatever in a living body are entirely vital or dynamic. Hence, food, poisons, viruses, miasms, and all the different kinds of stimulants that are applied to the economy, as well internally as externally, cannot have, and, indeed, have none other than a dynamic action; and hence, almost all that has hitherto been attributed to absorption, is destitute of foundation, and on examination is found to be false.

In proof of this assertion he cites various facts from the domains of hygiène, physiology, toxicology, and pathology. It may be said that light, heat, water, and oxygen, —that is to say, all that is most subtle, most ethereal, and least material in creation, are the true aliments of life. Not to mention those extraordinary but authentic cases where life has been prolonged, during months and even years of total abstinence, other and more familiar examples of this fact are not wanting. The developement of the chick, strictly secluded from all external influences; the production of a beautiful flower from the bulb, which receives no other nourishment than the vapour of water; the growth of vegetables, on cloth, in well washed sand, in litharge, in flowers of sulphur, in unglazed leaden shot, supplied with no other nourishment than distilled water; but, nevertheless, presenting on analysis all the constituent parts of the same vegetables growing in the richest soils, as shown in the experiments of M. Braconnot, are striking illustrations of this fact; and the observation of them drew from M. Braconnot this remarkable expression: "Oxygen and hydrogen—that is, water aided by the heat of the sun, appear to be the only elementary substances whence the universe was formed."

The function of digestion, apparently the most material and most chemical of all functions, is the most purely vital in its causes. Hence it is that the quantity of the nutritive substance is often the least important part, and that attention should be more particularly paid to its exciting quality and stimulating power. The dynamic effect of fluid aliments is still more evident, their result is rapid, often instantaneous. Set before a person worn out with fatigue, the most substantial viands, he will scarcely touch them, and will not at first experience any benefit from them; but give him the smallest quantity of brandy, and in an instant he feels its beneficial effects.

The subject of fecundation furnishes our author with a fruitful source of illustrations for his doctrine; and the experiments of Spallanzani with the ova of the frog, the impregnation of women where the hymen was still perfect, the observations of Harvey, with respect to the fecundation of bitches and rabbits, in whose wombs no trace of semen could be discovered, are successively adduced.

"And again," he asks, "what are relative greatness and smallness in the case of the seeds of vegetables, but a mere *lusus naturæ?* Who could believe that invisible seeds of plants are continually suspended in the atmosphere?—that those of mosses, fungi, of lichens elude our eye, and float invisible in the circumambient air? Who could believe, if experience did not prove it to us every day, that within the case of a seed, which, from its minuteness, cannot be perceived by the microscope itself, there is contained the power which shall one day produce a vegetable? Who could believe, in fine, that in the embryo of the acorn there exists, in infinitely little, the largest tree of the forest, which only stands in need of developement? According to Dodart, an elm can produce, in a single year, 529,000 seeds; Ray counted 32,000 on a stalk of tobacco. If all these seeds should come to perfection, it would only require a few generations, and a very small number of years, to cover the whole surface of the habitable globe with vegetables. If, then, atoms can produce an entire being, why should we tax them with impotence when the question is about merely modifying a being? If an atom gives life, is it more difficult to conceive that it may change the mode of being? When *the greater* exists and starts up before us in the processes of nature, why should *the less* be declared impossible?

From the department of toxicology the learned Professor instances, in support of his views, the violent effects of a drop of prussic acid; the arsenical preparation celebrated in the 16th and 17th centuries, under the name of *Aqua toffana*, which killed with the rapidity of lightning; the poison of the wasp, hornet, and bee, the smallest atom of which placed on the tongue burns it as severely as the most concentrated mineral acids; the virus of the scorpion, of certain spiders, and of serpents; the fresh water polypus, which, of all poisonous animals, possesses the most active venom. The experiments of Fontana show that the *thousandth part of a grain* of the poison of the viper, inserted in a muscle, suffices to kill a sparrow. Some plants furnish poisons which surpass in their effects

the most corrosive metallic poisons. De la Brosse in his *Voyage aux regions intertropicales*, has these words:—"There arrived seven or eight negroes in palanquins, the principal personages of Lowango, who presented their hands to be shaken by the French and English officers. These negroes had previously rubbed their hands with an herb, which is so extremely poisonous that it takes effect in a moment. They succeeded so well in their nefarious designs, that five captains and three surgeons fell dead on the spot." De la Brosse does not mention how the negroes preserved themselves from the effects of the deadly poison they had in their hands.

The effluvia exhaled by certain plants, the dew or drops of rain that fall from the leaves, can produce injurious effects, as is said to be the case with the mancinilli and the rhus toxicodendron

From pathology the Professor cites the following facts:—The minute quantity of matter from the malignant carbuncle, and of saliva from the rabid dog, which are sufficient to transmit these diseases; the imperceptible nature of the miasms, which produce respectively syphilis, small-pox, the plague, cholera, and the instantaneous manner in which they infect the organism; for although the morbid state is not manifested, it may be, until after the lapse of a consieerable time, this only proves that internal disease requires that time to ripen and fructify, in the same manner as the flowering of the vegetable announces its maturity, or the development of the fœtus shows that conception has taken place.

The comparison of the disease to the flowering of a plant has given rise to some useful practical reflections by Professor D'Amador, which we shall here quote:—

"An individual is affected to-day with some morbific germ, but the products of the infection do not appear externally until after the lapse of four, six, eight, fourteen days, or even a month. The interval which elapses between the moment of infection and that in which the disease manifests itself, is the period of the germination and growth of the inoculated germ: it corresponds exactly to the latent and unnoticed stage during which the seed buried in the earth undergoes a fecundating incubation. The eruption and all the other symptoms are but the development of the morbid germ, as the flowering and fructification of the plant represent the visible evolution of the germ.—Hence I affirm, that what modern pathology regards as the root of diseases—*e. g.*, the exanthemata, is the veritable, the sole cause of the terrible ravages they commit on mankind. What should we say of the agriculturist who in order to modify the life of the tree, should direct his attention to the flowers and fruit, and neglect the roots? The therapeutists of the present day do this; and I shall leave it to your sagacity to say what will be the ulterior consequence of such conduct.

In truth, the destruction of its flowers or fruit does not cause the death of the vegetable; and thus it is with syphillis, and psora, and other eruptive diseases. To cauterize, dry up, or otherwise forcibly destroy chancres, is but to give new strength to the disease; as plants acquire fresh vigor from being pruned, and in the following spring shoot forth more luxuriant flowers. After the material destruction of their external signs, which may be regarded as the product of fructification, they send forth new flowers, which medical men have the simplicity to regard as a new disease."

The above is a brief outline of the facts presented to our attention in the paper of Professor D'Amador; but its chief interest lies in the conclusions to which the author arrives, which although somewhat opposed where theoretical, to our own physiologal faith, can hardly fail to attract the attention and convince the understanding of the numerous adherents of the Montpelier or dynamic schools, which boasts of following out the principles of Hippocrates, and whose ablest exponent finds in the writings of Hahnemann the complement of the doctrines of the sage of Cos.

After adducing the well known facts of the chemical purity of the air in localities where ague, the plague, the cholera, or epidemic diseases are committing their ravages; after observing that the contents of the poison-bag of the viper resembles in chemical composition sweet almond oil; that the pus of the pestiferous bubo, the lymph of the vaccine pustule, differ not, save in their effects, from ordinary pus and lymph; he infers that the material we subject to our analysis is but the vehicle in which an immaterial ethereal virus resides, analogous in this respect to the vivifying principle of the organized being. But we shall give his own eloquent words:

"What, gentlemen, can we conclude from all this, but that pathology resembles other branches of our science? what can we conclude, if not that a morbid cause is always, and under all circumstances, the product of a force, and that a material form in which it presents itself to our view, is but the gross covering that conceals it from us: that external forces only act on our organs when they meet with forces in us on which they can act: hence the invisible, the instantane-

ous character, the celerity of pathogenetic actions, whether of contagious, or of epidemics, or of the natural or artificial inoculation of diseases. In all cases it is forces which meet, combat, combine, repel, neutralize each other, or mutually regulate one another. Our health, disease, death, our very existence, is but the result of these forces. Thus it is that nature, in the immense scale of being, has sketched, as it were, an entire system of forces, and that passing from forces which are not precipient to those that are, from inanimate to living forces, she has, by gradually progressive shades, at last developed in man the supreme type of forces, and the most elevated degree of existence. In man, indeed, life does not exist solely in sensible and irritable organs, in the involuntary motions they execute, nor in the connected chain produced and maintained by the combined actions of life. In man true life consists in thought, in that intellectual something which gives us consciousness of our existence, and in that power of will which renders us masters of ourselves. Such is life at its culminating point, force *par excellence*, the greatest, the most profound, the most inexplicable of all mysteries. Life, which not only gives us the enjoyment of ourselves, but which attaches us to all that surrounds us. It is by means of it that the grand spectacle of nature attracts our attention, that our ideas dart from pole to pole more rapidly than lightning; it is by means of it that thought embraces in its grasp in a moment of time the whole expanse of worlds, all the vast extent of the universe, and loses itself in infinity.

"There is, then, in every science, and particularly in medicine, both sensible facts which are seen, and invisible facts which can only be conceived, both demonstrable and inductive facts, both facts which are apparent, and such as are more concealed, which, without being seen, regulate and govern the other facts. It is these invisible and only essential facts that alone are important, for they are the generators of other facts; and in every case that which is not seen governs that which is visible. These facts are the various forces of nature. These forces are at the bottom of all visible phenomena, they produce them, they modify them for good or for evil, and, since they are the true causes, if we modify them we shall modify the phenomena themselves. 'For the true springs of our organization,' as Buffon remarks, 'are not those muscles, those veins, those arteries, which are described with such exactness and care. There exist in organized bodies internal forces, which do not follow the gross mechanical laws we imagine, and to which we would reduce everything.' This thought has been expressed in different terms, by a man as great in the astronomical, as Buffon was in the physical sciences, whose name corresponds in France to that of Newton in England. 'Beyond the limits of this visible anatomy,' says Laplace, 'commences another anatomy whose phenomena we cannot perceive; beyond the limits of this external physiology of forces, of action, and of motion, exists another invisible physiology, whose principles, effects, and laws, it is of greater importance to know.' And, we may add, that beyond the limits of these material and voluminous therapeutics, there are other therapeutics far more important to know, and far more useful to practice.

"Thus the greatest men, of whom the sciences usually opposed in spirit to medicine can boast, are unanimous in the admission of a vital dynanism; and I imagine, gentlemen, I have a fair title for obtaining your assent to this great dogma, by placing it under the ægis of these illustrious names.

"I have thus, I conceive, proved to you that the most active agents in nature are imperceptible entities, which, like electricity, magnetism, heat, and light, have neither odor, savor, color, volume, dimensions, determinate shapes, nor definite proportions; which pervade all things without being any where perceptible; which govern all things without being seen themselves; which penetrate every where, but whose essence we cannot penetrate. Agents of life, of health, of death, and of disease, nature has disseminated them every where throughout the immensity of space, under the graceful form of flowers, in the fluids which are appropriated or rejected by animals and plants. To these invisible agents, to these forces we owe our earliest breath; to them also is due our latest sigh; from them alone is derived the continuance of our existence, and they are the source of the derangements we are subject to. Physiology, hygiene, toxicology, and pathology, in other words, the sciences of life, of health, of death, and of disease, are all dependent on the same principle; for it is a force, a breath, that creates, kills, preserves us, that produces our diseases, and occasions our sufferings.

"It remains to be proved, gentlemen, that the therapeutics are, and ought to be, similar to the other departments of our art,—that it is also a breath, a force, that cures and relieves our disorders. It remains to be proved, in order to trace the complete scientific circle, that the therapeutics of forces, the dynamic therapeutics, the vitalist therapeutics, (for they are all the same,) are like-

wise, of all possible therapeutics, if not the only true, at least the speediest, the surest, the most appropriate, and, in the vast majority of cases, the most efficacious of all therapeutics; that they are the most rational in theory and the most successful in their practical application; that they alone ought to be, that they alone are, able to realize the three grand conditions that Celsus, even at the early period when he flourished, demanded of all useful therapeutics, to cure diseases quickly, certainly, and agreeably. In a word, it remains to be proved that if there be a dynamical, a vital physiology, hygiene, toxicology, and pathology, there ought to be therapeutics of a similar character."

After quoting some facts from Allopathic observers to prove that such is the case, among others the experiments of M. Lafarge, who has always succeeded in producing an eruption of a specific character by the inoculation of the most minute portions of laudanum—1-500th, 1-1000th, 1-2000th of a grain, and the observations of M. Soubeiran with respect to the efficacy of extremely minute doses of a certain furruginous preparation, our author goes on to say:

"But it will be said, these facts may be true, but they are repugnant to common sense. Gentlemen, if the action of imperceptible agents is opposed to common sense, that is as much as to say that experience is opposed to it; but as common sense and experience are not, and cannot be contradictory, if common sense refuses to believe in the action of imperceptible agents, common sense stands in need of a thorough reform, which experience will be able to effect.—Science, which is nothing else than the reflection of experience, has, in this manner, reformed common sense several times. Common sense believed for centuries that the world was fixed, and astronomical science corrected common sense, and brought it to its own way of thinking. The virtue of vaccine was repugnant to common sense, at the period of its discovery: but, now-a-days, experience has so completely demonstrated it, that any one who doubted it would be held to be destitute of common sense. In fine, common sense rebelled and with some reason, against the frightful doses of the Italian school. It could not be comprehended how twenty grains of tartar emetic would not produce vomiting, when two grains caused copious evacuation; but here again, as elsewhere, science—that is to say experience, has advantageously put common sense to rights.

"And should we, with this before us, treat with contempt a system of the therapeutics which is but the application of one of our most certain maxims? To the diseased vital forces let us oppose the forces of natural substances, but divested of all material covering; these forces will thus be brought face to face; they will act directly on each other, without any interposing agent; and hence will ensue more rapid, more certain, and more agreeable cures. * * * * * Observe, finally, gentlemen, that the vital therapeutics of which I speak are to medicine what the study of electricity and the imponderables has been to chemistry, —what the study of motive powers has been to mechanical art. * * * * * * Far from overthrowing Hippocratism, or the true vitalism of Montpelier, our modern therapeutics confirm, complete, extend, and apply it, add what was wanting to it and supply its deficiencies. The Divine Old Man bequeathed to us, so to say, the code of medicine, in which its great laws were laid down, its principles registered, its fundamental dogmas established; the work of ages is and ever shall be to deduce from these premises the most remote consequences; to bring all the great facts which subsequent discoveries may reveal and produce within the Hippocratic domain. Some of these discoveries have been already gathered in, and can never more be lost; others have been sown, and as yet exist but in the germ; but nought can blast this germ; on the contrary it will grow, and the tree will yield its fruit to us and to all posterity."

Cases of the Pathogenetic Action of Sulphur and Cantharides.

The following two interesting cases were observed at the Liverpool Homœopathic Dispensary:

CANTHARIDES.

F. T., aged 17, had been all day engaged in making the "Emplastrum Cantharidis" of the shops. He had been standing over the pan in which the material was boiling, but toward the close of the day he was affected with the following symptoms: Great dimness of sight, attended with smarting and burning round the eyelids, and round the balls of the eyes; constant lachrymation; the eyes turned towards the nose; twitching of the eyelids; he could not close his eyes without great pain, from smarting of the lids chiefly; there was considerable redness, and an apparent distress from the inflammation of both eyes.

On hearing how he had been engaged, the

suffering was at once attributed to Cantharides; but, whether he had been affected by the mere effluvium, or any particles of the powder had got into his eyes, he could not tell.

Some drops of the strong camphor tincture were at once given him.

The next morning every thing appeared to him to be yellow. The nose was also considerably affected; some swelling with redness and heat, within as well as without, with the appearance of suffering from very severe coryza. He took spirits of camphor every hour.

The third day his eyes were quite well; the dimness and haziness of sight had given place to the usual clearness of vision; slight appearances of the affection of the nose only remained The day following he returned to his usual occupations.

SULPHUR.

John Kerney, aged 21, had severe toothache; and having read in a newspaper that smoking Sulphur was a certain cure for tooth-ache, he smoked three pipesful in rapid succession; he then went to bed, and fell asleep, but awoke in an hour in great fright and distress; his symptoms were dyspnœa to a sense of suffocation, with severe constriction of the chest, extreme faintness, vehement palpitation of the heart, and horror of instant death. There were universal tremors; his head seemed to him distended, with loud noises in the ears; he distinguished especially a boring pain over the left eye; his bowels were obstinately obstructed for four days, and no action could be produced by various aperients which he took. The day after smoking the Sulphur he had intolerable itching over the whole body; this was followed in a day or two by the appearance of reddish blotches over the trunk and extremities; he had severe pain across the loins.

He was seen, as a dispensary patient, for the first time, on the 18th September, 1845. At that time, his face was very pale, and collapsed with an expression of great anxiety; there was still vehement palpitation, the pulse feeble and very irregular; considerable dyspnœa, with sense of constriction; intense head-ache, with sensation that his head and ears were stuffed; loud noise in the ears; tremor of the limbs, with considerable itching of the arms and legs, but no eruption was to be seen; he complained of pains throughout the body. Pulsatilla 3 was given every four hours, and this medicine was continued through the treatment, (with the exception of a few doses of Aconite.)

September 27. No symptoms remaining, except a very slight uneasiness on taking a deep inspiration. He was allowed to return to his employment.

THE DISSECTOR.

NEW-YORK, OCTOBER 1, 1846.

The Principal Articles in the Present Number.

In this number of the Dissector, we have the pleasure of presenting our readers with several articles of unusual interest and value. In the three original "Tracts on Consumption" which have enriched the previous numbers of the present volume, we now add the fourth and most practically interesting. These remarkably able and learned papers have commanded great attention and won for their unobtrusive author a high degree of respect from many minds of an exalted order. They are distinguished not less for the originality, completeness and cogency of their method of investigation, than for the perspicuity and general terseness of composition. The reader will be gratified to perceive that they are to be continued into a portion, at least of the next volume of this Journal.

Among the other articles which we consider worthy of special consideration is the one extracted from the British Journal of Homœopathy, "On the Action of the Imperceptible Agents on the Living Body."—The paper does not assume to be an elaborate and thorough development of the subject, and it would not be difficult to furnish a multitude of additional and more striking illustrations even of its main positions. But it affords most gratifying and exhilarating evidence of the curiosity which this most profound and comprehensive—nay, substrative field of philosophy is enkindling in intellectual Europe.

With this number of the *Dissector* closes its third volume. The friends of untrammeled inquiry into the principles and practice of medicine and the collateral sciences, which this Journal was established to exemplify and promote, will be gratified to

learn that, even in the utter neglect of the usual artificial and business efforts to ensure the success of a new periodical, and notwithstanding the professional hostility which it has rather courted than evaded, it has acquired a support and influence which justify its continued publication under prospects of increasing its sphere of usefulness to a most flattering extent. And the Editor ventures to hope that the improvements which he contemplates making in the diversity and originality of its matter, will render it more deserving of the unwonted and truly cordial support it has received.

Mesmeric Surgery.

On Tuesday morning last, at 40 Hudson street, a boy nine years old, was put in the mesmeric sleep, and the operation for *strabismus* performed, without his evincing any sensibility, until nearly through, and then but in a very slight degree. During the operation, the boy was lying on the table without any restraint, and made not the slightest movement, and after waking up, was wholly unconscious of the operation having been performed.

The boy was put in the mesmeric state and operated upon by Bro. Dr. James Ashley, before quite a number of gentlemen.

Another Mesmeric Surgical Operation.

We have been rather sceptical, heretofore, regarding those mysteries of mesmerism, but expect now a strong disposition to believe. An operation for *strabismus* (squinting) was performed on Monday, 14th inst., at 40 Hudson street, upon a girl, while in the mesmeric sleep, with admirable success.—She knew nothing of the operation until it was over. Several medical gentlemen were present who appeared to be much gratified.

The operation was performed with admirable science and skill, by Dr. James Ashley, a young physician and surgeon of great talent and industry, and ardently devoted to his profession. His office is No. 40 Hudson street.—*Golden Rule.*

We were present at the last of the above operations, and although the girl knew nothing of the operation until it was over and she was informed of it when in her natural state, yet she retained her sensibility in the magnetized state as many others do, and felt the operation severely in that state.

HOMŒOPATHY,

The following case is extracted from the American Journal of Homœopathy, of Aug. 15, 1846, p. 101.

A CASE.

Mrs. B., aged 55, of a sanguine, nervous temperament, had been sick for three years. One year ago a record was made of her case, and seemingly the most appropriate drugs administered, with only an occasional partial mitigation. The attacks became severe, and were wearing out one of the best constitutions. This lady is intelligent and one of the firmest advocates of Homœopathy, notwithstanding she could, herself, procure no relief from it. The *law of cure* she knew to be true: but the remedy was wanting.

Lately another record was taken of this case, which was as follows:

Pain on the top of the head in the morning, swimming in head when stooping or rising, cloudiness of the eyes, soreness of mouth and throat, dry cough in the morning, attacks of tearing pain, sometimes stinging and sharp, commencing in the stomach and extending to the sides, and shoulders and nape of the neck, with stiffness; distress in stomach like a weight, mitigated by eating; sense of fulness in stomach; wind on stomach, eructations; cannot bear the pressure of even light clothes. Pain in the bowels, bearing down or pressing pain; pain in the left side, as if something adhered to the lower ribs. Constipation; sense of dragging and falling in abdomen; pain as if in the bones, like rheumatism; jerking of the feet in the evening. Numbness of the arms, with pricking in the fingers. Sleep disturbed, frequent wakings; pain in the stomach at night. Fatigue from walking; excessive debility; sufferings aggravated on change of weather. The pains are tearing, stinging, pressing and shifting—sometimes on the left, and sometimes on the right sides; and then on both sides at the same time; some of them aggravated by movement, and others mitigated by lying down and rest.

The attacks had occurred daily at five o'clock, P. M., and almost invariably at night, awaking her from sleeping, there had been no intermission for months.

As I had been trying *rhus radicans* on myself for some weeks, I was struck with the

peculiar stinging, pricking pains of this case as corresponding to those I had experienced in my own person by the above drug. On the 26th of June last, at 4 o'clock P. M., I gave her three globules of the third dilution of *rhus radicans*. She had no attack that day, nor has had any since;—her health improved, and it is now good.

S———.

The above is a plain case of chronic tubercula of the muscles, (chronic rheumatism) and is invariably distinguished in an instant by the pain produced by pressure with the thumb and fingers on the back of the neck. This would not, however, answer for the homœopathist. He must make a minute record of every old astrological symptom he can find in each case, and then commence a search in his books for the medicine which is homœopathic to them, or produces the same symptoms in a state of health. It will uniformly require from three to four hour's search to find the medicine, and in the meantime the wind has often changed, and the symptoms of which the doctor has made a record have also changed entirely with the wind, as every old woman knew they would, before the record was made, and this was the reason why the "seemingly most appropriate drugs were administered with only an occasional partial mitigation." The doctor, however, had fortunately been trying *rhus radicans* on himself, and was struck with the peculiar stinging, pricking pains of this case, as corresponding to those he had experienced on his own person in a healthy state, by the above drug, and gave the lady *three* globules of the third dilution when the disease disappeared—"her health improved, and it is now good," or in other words the disease was cured with *one* homœopathic dose of *rhus radicans*.

On reading this case, we sought for, and luckily obtained a few doses of the precious drug, and soon prescribed it in ten cases of chronic rheumatism, with the "peculiar" or "stinging and pricking pains." In six of these cases the symptoms were apparently palliated temporarily, but in the other four cases, no effect whatever was observable.

We could give a great number of cases of chronic tubercula of the *organs*, and also of chronic mucosis of the organs and muscles, which have been under the treatment of the most distinguished homœopathists from three months to three years, with no other effect than that of an occasional partial mitigation of the symptoms. Yet the homœpathic treatment of diseases is greatly superior to the old allopathic practice in curing acute, and mitigating the symptoms in chronic diseases.

BIRMINGHAM LYING-IN HOSPITAL.

Medical and Statistical Report.

BY J. M. WADDY, M. D.,

London, M. R. C. S., Senior Surgeon to the Hospital.

Before entering on the following statistics, it is well to remark, that as the benefits of the charity are limited to married women, many injurious complications of labor are to a great degree avoided; but the class of patients attended upon are, for the most part, poorly fed, clothed, and lodged, and many of them are employed in manufactories, and exposed to circumstances, of a moral and physical nature, extremely detrimental to their health and comfort.

The early age at which some marriages appear to have taken place, will strike the reader; but the freedom of intercourse between young persons of both sexes employed in factories, especially at meal times, and after work is over in the evenings, tends to the early development of sexual inclinations, and often induces early, ill-assorted, and compulsory marriages. These early marriages are extremely prejudicial to health—are embittered by constant disappointments, and are often associated with extreme poverty and wretchedness. No wonder, then, if in persons thus circumstanced, labor should often prove tedious, difficult and dangerous, and the offspring weak and sickly, having in birth the germ of future ill-health and premature old age, and the promise of an early grave.

The marriage of factory girls with apprentices, whose low wages are scarcely sufficient to procure subsistence for themselves, and which are quite inadequate to the support and proper maintenance of a family, produces very often scenes of misery

and wretchedness, surpassing, in their cold reality, the woes of fiction. Such scenes rarely leave their victims untainted in morals, never unprejudiced in health; and it is a subject worthy the attention of the statesman, to find a remedy for a system so burdened with social evil, and which, whilst it continues, must in many instances constitute an almost impenetrable barrier to the reception of moral and religious truth.

In Manchester, and in many other of our large manufacturing towns, the nature of the employment, together with the great number of hands employed, are such as to admit of a system of strict moral discipline being enforced, with a proper separation and classification of the sexes. This however cannot be done to any great extent in the number of small manufactories with which Birmingham and its neighborhood abound. The following are some of the results which presented themselves in the practice of the hospital during the last year:

TABLE I.

Age of Marriage.—Of 528 females, 1 had married at fourteen years of age; 4 at fifteen; 13 at sixteen; 44 at seventeen; 85 at eighteen; 81 at nineteen; 97 at twenty; 76 at twenty-one; 55 at twenty-two; 36 at both twenty-three and twenty-four; and 33 at twenty-five; beyond which age the number of marriages greatly diminished, and only 1 married respectively at the ages of thirty-two, thirty-four, thirty-seven and thirty-eight.

Of 574 males in Birmingham, it was also ascertained that 1 had married at fifteen years of age; 3 at sixteen; 12 at seventeen; 28 at eighteen; 42 at nineteen; 84 at twenty; 52 at twenty-one; 60 at twenty-two; 52 at twenty-three; 51 at twenty-four; 44 at twenty-five; 34 at twenty-six; and 31 at twenty-seven; beyond which period there was a material diminution; and only 1 married respectively at the ages of thirty-nine, forty, forty-two and forty-four.

TABLE II.

Age at the commencement of menstruation.—Of 623 females, in 1 the catemania occurred at nine years of age; 2 menstruated at ten; 15 at eleven; 46 at twelve; 87 at thirteen; 130 at fourteen; 115 at fifteen; 105 at sixteen; 67 at seventeen; 43 at eighteen; 10 at nineteen; and 2 at twenty.

TABLE III.

Ages of 708 women registered for attendance during confinement, (at the drawing out of the table.)—One at sixteen years of age; 2 at seventeen; 4 at eighteen; 6 at nineteen; 27 at twenty; 21 at twenty-one; 33 at twenty-two; 36 at twenty-three; 45 at twenty-four; 37 at twenty-five; 38 at twenty-six; 35 at twenty-seven; 41 at twenty-eight; 34 at twenty-nine; 52 at thirty; 28 at thirty-one; 27 at thirty-two; 39 at thirty-three; 40 at thirty-four; 31 at thirty-five; 23 at thirty-six; and 26 at thirty-seven; beyond which age a marked diminution in the numbers took place, except that at forty years 21 women were registered.

TABLE IV.

Previous labors.—Of 641 of the above women registered, 38 were primiparous; 104 had had one child; 94 two children; 70 three; 75 four; 77 five; 53 six; 28 seven; 43 eight; 25 nine; 20 ten; 7 eleven; 3 twelve; 2 thirteen; 1 fourteen; and 1 sixteen children.

TABLE V.

Previous abortions.—Of 268 women, 32 had aborted at two months; 139 at three months: 48 at four months; 22 at five months; 12 at six months; and 15 at seven months.

TABLE VI.

Intervals between deliveries.—Of 275 women, 3 had an interval between their confinements of ten months; 1 of eleven months; 51 of a year; 100 of a year and a half; 156 of two years; 87 of two years and a half; 51 of three years; 16 of three years and a half; 19 of four years; 6 of four years and a half; 5 of five years; 3 of five years and a half; one of eight years; and 2 respectively of ten, twelve and thirteen years.

TABLE VII.

Duration of labor.—Of 470 labors, 10 had terminated in an hour from their commencement; 32 in two hours; 34 in three hours; 63 in four hours; 51 in seven hours; 26 in eight hours; 28 in nine hours; 18 in ten hours; 17 in eleven hours; 27 in twelve hours; 17 in thirteen hours; 8 in fourteen hours; 12 in fifteen hours; 2 in sixteen hours; 2 in seventeen hours; 3 in eighteen hours; 5 in nineteen hours; 3 in twenty hours; 3 in twenty-two hours; 8 in twenty-four hours; 1 respectively in twenty-three, twenty-seven, thirty-three, and forty-four hours; and 5 in forty-eight hours.

TABLE VIII.

Presentations.—Of 487 presentations, 468 were of the vertex, in six of which the face was towards the pubis; in five, prolapse of the funis occurred, in three of which the children were still-born, and the hand presented with the head in two instances; six were shoulder or arm presentations, in which

cases four of the children were still-born; sixteen were breech-presentations, in which cases five children were still-born, and five were footling cases.

The vectis was used once, and the forceps twice—once in impaction of the head, and once in a retarded labor.

TABLE IX.

Time of expulsion of the placenta.—In 334 cases, this happened in five minutes after the birth of the child; in 22 in eight minutes; in 85 in ten minutes; in 51 in fifteen minutes; in 18 in thirty minutes; in 4 in forty minutes; in 3 in an hour; in 1 in an hour and a quarter; in 2 in an hour and a half; and in 1 in four hours, (this patient died with puerperal mania.)

Four placentæ were decomposed; five adherent, of which one was extracted in half an hour; two in an hour and a half, without hæmorrhage; and two in three hours, with hæmorrhage.

TABLE X.

Intervals between menstruation and confinement.—In 11 cases, there was an interval of six months; in 6 of seven months; in 42 of eight months; in 110 of nine months; in 70 of ten months; in 2 of eleven months; and in two of twelve months. Ten patients had not menstruated since their previous confinement; three menstruated up to the period of quickening; and two menstruated during their entire pregnancy.

In one case, in the first year's practice of the hospital, convulsions took place three weeks before labor; the patient was relieved by bleeding, &c., and did well.

Puerperal convulsions occurred in two patients.

Two cases of monstrosity occurred, and a child was born with but one ear.

Death took place in one child from hæmorrhage from the funis, which had been carelessly tied by a midwife.

Severe hæmorrhage occurred in four cases; hour-glass contraction in one instance.

Slight hæmorrhage in three patients; hæmorrhage before birth in one.

A child was suddenly expelled, and labor quickly terminated by a severe rigor.

One patient died a few weeks after childbirth, from the combined effects of hæmorrhage and starvation; from being an affectionate mother, she gave her children what she ought to have had herself.

One patient walked to the hospital, a distance of four miles, during her labor, and was safely delivered within ten minutes after her arrival.

One female has had seven preternatural presentations, and only one cranial. Two of her sisters lost their lives by cross births.

Labor commenced in one instance, with a severe rigor, lasting two hours; rupture of the membranes cured the rigor, and the child was born with one long continued pain. This woman has had six children, all born in the same manner.

In one case, a tumor occupied the pelvis; but receded prior to the birth of the child. In another case, a tumor situated apparently in the uterus, was attached to the parietes of the abdomen. Both women did well.

One woman suckled three months; another four months; and a third during the whole term of pregnancy; but in the last case the infant was very feeble, and died within a few hours of its birth.

One woman had great obliquity of the uterus, and the pains were suspended for twenty-four hours after its full dilatation.—Ergot was given, and the labor terminated rapidly and favorably.

Among the deaths were, one from phthisis; one from typhoid pneumonia, during the presence of which delivery took place; one from puerperal mania, (this patient had previously been afflicted with insanity;) and one, as mentioned above, from the effects of hæmorrhage and starvation.—*Lon. Lancet.*

MEDICAL SOCIETY OF LONDON.

MR. DENDY, PRESIDENT.

MAY 4, 1846.

Remarkable Case of Purpura.

Dr. Clutterbuck had lately seen an extraordinary case of purpura, which, from the extent of the disease, might almost be called "morbus niger." The patient was a Belgian, 19 or 20 years of age, and a few days before the appearances on the skin presented themselves, was afflicted with pains in the limbs; the surface then became studded with purple spots, which spread over the entire surface of the body. The patient was inclined to dose, but was sensible when roused. The affected parts were painful to the touch, but gave no evidence of increase of heat, and there was no swelling. There had been nothing in the habits or mode of life of the patient to explain the unusual disease which presented itself. He had never been so attacked before. The mouth inside was affected with livid spots. The treatment at first had been that usually employed for scurvy, as vegetable acids, &c.; but this failing to afford relief, and free acid being found in the urine, alkalies were substituted and he (Dr. Clutterbuck) believed with good effect. He had, however only seen the case

for a few minutes, and could not speak more authoritatively respecting it; he had seen it merely as a curiosty, which it certainly was. In a subsequent part of the evening, in answer to various questions, Dr. Clutterbuck said that the disease began in the legs and more distant parts; it first appeared in the shape of elevated, hard, inflamed pimples, about as large as peppercorns, and these spread laterally, until the entire surface became one black mass. The pulse was feeble, the patient lay prostrate, and exhibited the usual symptoms of low spotted fever.

The President remarked that the headache in this case tended to show that the disease was associated with venous congestion, as supposed by Dr. Hartry and others. Upon this principle, that practitioner had employed bleeding and drastic purgatives with the best effect. Connected with this congestion, no doubt there was some change in the circulating fluid itself, the crasis of which had been broken up, so that it became like the mere *liquor sanguinis*.

In reference to the nature of purpura generally, Mr. Hilton had recently found it associated with a low condition of the system, and reduced quantity of the blood. Treatment to improve this condition was usually beneficial. He had seen, however, one or two cases in which there was a large quantity of blood in the system. These were benefited by depletion, generally, but were exceptions to the rule.

Mr. Roberts did not believe there was any analogy between purpura and scurvy; in purpura there was no sponginess of the gums.

Mr. Dendy made some remarks to show that apparently opposite modes of treatment, as adopted by various practitioners in this disease with equal success, might be explained by the facts of these modes tending to produce the same result—viz., an improved state of the secretions, by which the general health was improved.

A member mentioned some cases that were cured by small repeated bloodlettings, which tended to show, as the President had formerly remarked, that the disease depended on congestion.

Dr. L. Stewart mentioned a case of malignant small pox which proved fatal in thirty-eight hours. The pock did not maturate, and the entire surface assumed a purple hue like that present in purpura,

t Mr. Barlow believed that facts were against he suggestion that purpura depended on venous congestion, inasmuch as anasarca and other results of obstructions to the veins were not associated with purpura.

Tubercular Meningitis.

Dr. Willshire laid before the Society portions of white matter of each hemisphere of the brain of a young girl, containing a tubercle, and made the following remarks upon the case. When first seen by him, she complained of great pain at the top of the head, the suffering often being very intense; pain also along the neck, left side, and at the epigastrium; the hands hung listlessly at her side, and she was continually sighing; every now and then she was seized with violent trembling; the countenance was exceedingly anxious, and expressive of much suffering. The tongue was foul, the bowels were costive, the pulse was feeble, and the child somewhat emaciated. There had been vomiting also. On inquiry of the mother, it appeared she had sought advice for her child a week before, as she then had diarrhœa and severe cephalalgia; she was told that the girl had slight fever, of which she would soon recover. In her opinion however she had been daily getting worse. The head was now ordered to be shaved, and rubbed night and morning with compound iodine ointment; a blister was applied behind each ear, and dry cupping at the nape of the neck. She was directed to take eight grains of aloes, and five of the sulphate of potash, night and morning; and one-sixth of a grain of iodine, with two grains of iodide of potassium in distilled water every four hours.—From this period until the day of her death, nineteen days afterwards, though gradually getting worse, the symptoms constantly remitted; stupor, slight delirium, dilated pupils, apparent blindness, difficulty of swallowing, coma; slight convulsions, however, finally closing the scene. In addition to the therapeutic measures already alluded to, it was found necessary to blister the scalp which was afterwards dressed with tartar, emetic ointment, and the iodine being omitted, nitrate of potash was given in medium doses instead; injections of turpentine and castor-oil were ordered to be administered. On inspection of the contents of the cranium, twenty-four hours after death, the following pathologic conditions were observed: Slight congestion of sinuses and veins, very distinct flattening of convolutions and raising of the sulci; on pressure the brain felt very firm. Along the edges of the convexities of the hemispheres lymph was deposited, along with numerous yellow granular tubercles. No increased vascularity, no congestion of the pia-mater, or of the cerebral substance itself. In the white substance of each hemisphere, rather superficially, was a tubercle of the size of a pea, in a soft cretaceous condition, surrounded by a sort of cyst. Ven-

tricles much distended, containing not less than eight ounces of fluid, perhaps more. No softening of the central portions of the brain. At its base, from the junction of the medulla spinalis with the pons varolii to the commissure of the optic nerves, was a considerable amount of yellowish-green gelatiniform serosity. At one part of the edge of this latter were numerous granular tubercles. The skull was not symetrically developed round its axis. Dr. Willshire remarked that the case offered the following points of interest:—1st. The cephalalgia not being frontal, as is usual in tuberculous meningitis, but felt at the vertex. 2nd. The disease putting a stop to the diarrhœa, and costiveness supervening as illustrative of some cases recorded by Gerhard, Pilt and Green, in which diarrhœa was arrested by the supervention of meningitis. 3d. In agreeing with the statement of Rilliet and Barthez, that tubercles of the brain proper are more frequently found in the hemispheres. 4th. That yellowish-green gelatiniform serosity in tuberculous meningitis is more common at the base. The great trembling, the sighing respiration, the peculiar expression of the child, denoting severe cerebral disorder, the absence of certain lesions of motility, which in these cases are common, were also alluded to as points for discussion.

Dr. G. Bird inquired whether, previous to death, the lungs had been examined in this case, and if so, whether there were dulness under the clavicle, or any other sign of tubercular disease. Such sign was often a valuable assistance in our diagnosis of tubercle of the brain; dyspnœa, or even orthopnœa, was often present in these cases; was it so in the present instance? He inquired also as to the presence of reflex action.

Dr. Willshire alluded to a peculiar sighing present in this case, and analogous to the "cerebral breathing" of Dr. Graves. There were no reflex phenomena. He had examined the chest, not with the view of determining the presence of tubercular disease, which in general was not sufficiently advanced to aid us, by its physical signs, in diagnosticating tubercular meningitis, but rather with the view of determining whether pnuemonia were present. There was however no sign of that disease.

Mr. Barlow enumerated three circumstances which were observable in this case, and which led him at once to suspect serious mischief of the brain. The first was the peculiar character of the pain, the second repeated sighing, and the third an extreme distress of countenance.

Some discussion afterwards took place between Mr. Linecar, Dr. Bird, and others, respecting the connexion which the tubercular deposit bore to the symptoms, and whether it was really a cause or effect of them.

May 11.

Copaiba in Inflammation of the Mucous Membranes.

Mr. Robarts related a case of nephritis, in which, after bleeding, and the ordinary treatment of that disease, some inflammatory symptoms still remaining, and suppression of urine more particularly, he exhibited copaiba in ten drop doses three times a day, with the effect of restoring the secretion.

Dr. Willshire regarded the practice in this case as a fresh fact in favor of the use of balsams. In America it was given with good effect in the acute stage of gonorrhea; eminent surgeons had given it in sub-acute cystisis. In Dublin, turpentine was administered with benefit in cases of chronic inflammation of the air passages.

Some discussion took place respecting the use of balsam of copaiba in the acute stage of gonorrhœa.

Mr. Linnecar never employed it until after antiphlogistic remedies had been resorted to, as it had a tendency to produce a metastasis of the inflammation to the neck of the bladder, owing, as he believed, to its extreme diuretic power.

Mr. Middleton remarked that there was no doubt the balsam, when given in the acute stage of the disease, immediately relieved the pain; but whether the practice was a good one, was another question.

Some conversation afterwards took place respecting affections of the air passages in which several members took part.

—

May 18.

Ovarian Disease; Colloid Matter in the Cyst.

Dr. Waller detailed the particulars of a case of ovarian disease occuring in a woman fifty-two years of age, in which all the symptoms and signs of the affection were well marked. It was eventually determined to draw off the fluid, but on introducing the trocar for that purpose, no fluid whatever came away, and only a small quantity of a substance resembling calves'-foot jelly. It was evident that the tumor was full of this substance. It was agreed, after a consultation with Mr. Walne, to remove the tumor entire—a proceeding not before contemplated in consequence of the very depraved state of health of the patient. Before this operation, however, could be resorted to, inflammation of the cyst and peritonæum came

on, and the patient died. On examination after death, the cyst filled almost the entire abdomen, and contained a jelly-like fluid, in a quantity so large, as to fill a pail. There were adhesions to the left side of the abdomen, but none above or below. Would this patient have survived an operation earlier performed? He (Dr. Waller) believed that she would not, and was glad no such step had been resorted to.

Dr. G. Bird had seen more than one such case, and several had occurred in the practice of his brother, Dr. F. Bird. The mass filling the tumor was of colloid character and pinkish hue, intersected by a thin, hyaloid-like membrane, containing a jelly similar in substance to the vitreous humor of the eye. There were no means of distinguishing this substance from the fluid whilst in the abdomen. Dr. F. Bird had a notion that this class of cases was peculiarly adapted for operations, and that they usually did well. He (Dr. G. Bird) referred to a very interesting case of the kind lately exhibited to the Society, and reported in The Lancet.

Dr. T. Thompson made some remarks on the treatment of ovarian dropsy by medicines, and believed that he had seen benefit in this disease from the administration of alkalies in long and continued doses. He briefly referred to two or three cases in which during the use of the solution of potash, ovarian tumors disappeared. He thought the potash did not act simply as a diuretic, but had a specific property in these diseases.

Dr. Waller and Dr. G. Bird believed that no kind of medicine had any effect in ovarian disease.

Dr. Theophilus Thompson gave some particulars of a case of cancer of the lung, in which all the signs and symptoms of the disease were clearly doveloped, but no post-mortem examination could be obtained.

—

MAY 25.

Statistics of Consumption.

Dr. Theophilus Thompson gave a short report of some particulars which he had observed, during the last twelve months, as visiting physician to the Hospital for Consumption and Diseases of the Chest.—The number of patients treated by him during the year was 760, of which 286 were phthisis, in various degrees of advancement. Amongst seventy-seven cases of advanced phthisis, fifty-six were men, only twenty-one women; but of the cases of incipient phthisis, the number of males and females was nearly equal—a fact leading to the conclusion that the apparent preponderance of the former was attributable to the unwillingness or inability of women to leave their homes under circumstances of advanced disease. He remarked on the importance of prolonged expiratory murmur, when unconnected with bronchitis or emphysema, as an early indication of phthisis, and a sign, which, when once established, rarely disappears. He also particularly noticed, as a phenomenon of great interest and practical importance, the "inspiration saccadee" of some French authors—not the jerking respiration of spasmodic asthma, nor the interrupted inspiration of diffused pleurisy, but the division of the inspiratory murmur, as though the entrance of the air into the cells required several successive efforts. He had occasionally observed this sign at the back, as well as the front part of the chest. It sometimes disappeared under treatment; but there was reason to think it characteristic of a condition of the lungs which frequently immediately proceeded, or accompanied, tubercular infiltration. It was remarkable that of ten cases recorded during the year, the phenomenon had been in nine instances confined to the left side. He had during the last twelve months, taken notes of eight cases in which a murmur was heard in the second intercostal space, on the left side only, and was probably referrible to the pulmonary artery. In two of these patients the murmur disappeared under the use of iron; but in most, it was succeeded by more or less distinct manifestations of tubercular disease. He deferred any comments on cases of heart disease, bronchitis, and other pectoral affections, and concluding by mentioning the results of his observations regarding cod-liver oil, which he had administered in thirty-seven of the recorded cases. In three, the medicine was discontinued in consequence of the distressing nausea which it occasioned; in twelve, the reduction of strength appeared to be slightly retarded; in twelve, there was no perceptible effect; in ten, the increase of strength, plumpness, and energy was remarkable. When the fattening process was established, it generally became obvious within a fortnight. The author did not attribute to the oil any specific influence on the local disease; but believed it to be singularly efficacious in promoting nutrition. He had found it most useful to the pallid and phlegmatic, and, in private as well as public practice, had observed more decided amelioration under its employment than could be referred to any other remedial means with which he was conversant.

This being the last night of the session, the Society adjourned, after a short address from the President, until September next.

From the Transcript.

HUMAN MAGNETISM.

Mr. Editor:—As this all-absorbing theme appears to be the order of the day at present, we hope it will not be out of order to submit a few thoughts upon the subject, for public consideration, through the medium of your paper, together with some facts which occurred a few evenings since under our own observation. A number of young gentlemen of this city, on one evening of last week assembled for the purpose of witnessing, privately, an exhibition of some of the wonders of the above science. The experiments were conducted by a Mr. Keely, who has been engaged for the past week in public lecturing and demonstrating on Human Magnetism. Mr. K., by the way appears to be a man of considerable intelligence, and much of a gentleman in his deportment. Each of the gentlemen assembled, was requested to submit to a trial of the process by which the Professor brings about this mysterious influence. After consent had been given the magic coin was distributed, one piece being placed in the hands of each individual, and his eyes fixed closely upon it according to direction. He only succeeded, however, upon two of the persons present, one a resident of this, and the other of a neighboring city. Upon the latter of whom I shall endeavor to give briefly the results of the experiments, which were truly astonishing, and looked upon with a great deal of interest.

The gentleman in question was a firm believer in the truth of the science, in its early and more undeveloped forms, as presented by those who first agitated it. He has also been frequently operated upon by clairvoyance demonstrators, but averred most positively his conviction, that he could not be operated upon in the manner proposed by Mr. K., assigning as a reason that his manner of operating was in direct opposition to an established and fundamental principle of the science, viz: That the natural senses of the subject (while under the influence) were entirely destroyed, and that he only saw, heard, tasted, &c., through the senses of the operator, consequently the subject could not see any person or things, which the operator did not first picture vividly in his imagination.—After gazing, however, a few minutes upon the coin placed in hand, Mr. K. pronounced him fully under the magnetic influence. He requested him to rise to his feet and observed, that when he (Mr. K.) counted two, he would be compelled to open his eyes, and that he would be fully aroused mentally, but that his physical system would remain entirely under his control, which effect took place immediately after counting. He then went through his usual course of experiments, illustrating the fact that he thus held such control; such as requiring his hands to be thrown upon his head and fastening them there, until he willed their relief, and numereus other experiments of the same character. Mr. K. then wished to know if he desired to see any friend, he replied he did, and named two relations, both of whom were brought immediately before his imagination, and a near one who had been absent for five years. The scene which opened up at this imaginary meeting was indeed thrilling, we shall not attempt to describe it, as it would occupy too much space. The subject was then aroused but still avered that he was not convinced as to the point in controversy, i. e., that Mr. K. could not bring vividly to his mind any person or scene, unless he (Mr. K.) first pictured clearly and distinctly such person or scene in his own (Mr. K.'s) imagination he was not convinced from the fact that Mr. K. knew his relatives. Mr. K. then requested him to give his consent to be placed again under the influence, declaring that he would convince him beyond the possibility of a reasonable doubt. The gentleman refused at first, assigning as a reason, that he felt unwell and that he did not wish to go through the first process of looking at the coin as it was very fatiguing. Mr. K. remarked that although he felt perfectly relieved and fully aroused, yet his physical as well as mental powers were still under his control, here another controversy arose, and to settle the point, Mr. K. requested him to look him fully in the face; when he should command his hand to be fasted upon his head, and in spite of all the power and resolution he could sum up to resist it. He did so. He then required that after he should have counted four the subject should pass fully under the influences—which he did, closing his eyes. He then required that his eyes should be opened and fixed upon his, which was done forthwith. He then asked him if he had any friend in any quarter of the world that he desired to see. He replied he had, and after naming him was immediately introduced to one of the company as that friend by Mr K., who declared very impressively as he introduced him, that it was the person named. He immediately approached him shaking hands in the most familiar manner, exhibiting most strikingly and true to nature, all those agreeable emotions awakened by the unexpected meeting of the warmest friends after a long absence. He conversed freely and familiarly for perhaps fifteen minutes, passing all the usual congratulations upon such occasions, made numerous enquiries in relation to his business—wished to know if he had seen any old friends while absent, the individual replied he had not. However in the course of the conversation, the name of an old friend was mentioned as the subject, upon which Mr. K. immediately draws his attention and introduced him to another person as, such friend. He approached him in the same manner and conversed as before. These experiments were repeated with the most perfect satisfaction, until he had introduced him to every person in the room. He expressed the utmost pleasure and satisfaction at meeting so unexpectedly the many friends that surround him. There were, I think, twelve gentlemen in the room. Then in conclusion as a cap sheaf to the entertainments, Mr. K. was requested to draw his attention from the crowd for a short time, and see if he could be brought back into it, and single out each individual by their respective names, as he had been introduced to them. Mr. K. remarked that he was not absolutely certain that the result would be perfectly satisactory, as it was a class of experiments new to him, as well as to us, but that he was well convinced that satisfaction would be given, merely from inductions from well ascertained facts and other experiments, in the course of his practice, it was tried and the subject succeeded in every instance to the satisfaction of all.

AN INVESTIGATOR.

INDEX

TO THE

THIRD VOLUME.

1846.